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ABSTRACT

This book contain papers 13 papers on enhancing inter-firm networks, including by intervening in mergers and acquisitions and developing strategic alliances and partnerships. The following papers are included: "Introduction" (Anthony F. Buono); "Making Mergers and Acquisitions Work: A Guide to Consulting Interventions" (Mitchell Lee Marks); "Teaching to the Issue: Human Resource Intervention in Mergers and Acquisitions" (Vicki Van Steenberg LaFarge, Aaron J. Nurick, Ellen Leiter, Anthony F. Buono); "Forging a Postmerger Identity: Tough Work in the Executive Suite" (James W. Fairfield-Sonn); "What 'Due Diligence' Really Means: Intangible Capital and Organizational Reality" (Judith A. Gebhardt); "Knowledge Transfer and Organizational Learning in Strategic Alliances" (Daniele Chauvel, Nicolas Rolland, Charles Despres); "Complex Learning Partnerships: Creating the Connections in International Alliances" (Iris Berdrow); "Dynamic Competition and Development of New Competencies: The Case of the Internet Consulting Industry" (Valerie Claude-Gaudillat, Bertrand V. Quelin); "Reflexive Development of Interfirm Networks: The Role of Managers and Consultants" (Joerg-Sydow, Arnold Windeler); "Building Effective Innovation Networks: Enhancing Cooperation in Pubic-Private Partnerships" (Eric Davoine); "Corporate Venturing: Is an Acquisitive Strategy a Sustainable Pattern of R&D Externalization?" (Michel Ferrary); "Creating a Collaborative Community of Management Consultants" (Janice Twombly, Jeffrey Shuman); and "Building Sustainable Networks: An Action Research Strategy for Management Consultants" (Marilyn E. Harris, Guilan Wang). Most papers include substantial bibliographies. (MN)

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A VOLUME IN
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Enhancing Inter-firm Networks and Interorganizational Strategies

A volume in
Research in Management Consulting
Series Editor: Anthony F. Buono

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Enhancing Inter-firm Networks and Interorganizational Strategies

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INTRODUCTION

Anthony F. Buono

Strategic relationships between organizations—from mergers and acquisitions, to joint ventures, partnerships and alliances, to myriad forms of organizational networks and consortia—have become an increasingly important dimension of organizational life. These interorganizational linkages are a response to the uncertainties and ambiguities in the larger environment and, given the turbulence and chaos in today's business world, such inter-firm ventures are being formed at an unprecedented pace. Indeed, as the forces of global competition continue to escalate, supply chain linkages and efficiencies become critical competitive weapons, R&D efforts become larger and riskier, technology developments become too expensive to afford alone, and the ability to dominate markets becomes increasingly difficult, these interorganizational relationships have become an integral part of corporate strategy.

The effectiveness and ultimate success of these interorganizational forms, however, rests largely on cooperative efforts and coordinated activities across organizational interfaces (Smith, Carroll & Ashford, 1995), the difficulty of which is painfully apparent in the wake of all too many failed ventures. Thus, the idea of planned change to support these interorganizational ventures has become an increasingly important focus of researchers, consultants, and practicing managers. The need for such intervention becomes even more apparent when one realizes that these interorganizational ventures—especially those that attempt to create strengths and/or capabilities greater than those present in the independent partners (see

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Buono, 1997b; Marks & Mirvis, 1998)—require a level of consultation and collaboration that goes well beyond typical patterns of management and organization.

ENHANCING INTER-FIRM NETWORKS AND INTERORGANIZATIONAL STRATEGIES

The focus of this volume is on the myriad dynamics associated with these interorganizational ventures. Emphasis is placed on (1) understanding the nature of these different interorganizational forms and (2) ways to enhance their effectiveness, creating and sustaining complex problem-solving capabilities and collaborative tendencies in a multiorganizational environment. While the orientation of many of the initiatives and interventions in this volume reflects a traditional organization-development (OD) focus, emphasis is placed on working *across* organizational interfaces, attempting to create the capacity and systemic potential for greater interorganizational learning and performance, rather than releasing human potential solely *within* an organization (see, e.g., Cummings, 1984). Consultants and researchers in this realm thus focus on spanning organizations, creating and modifying networks of participants that (1) have a stake in particular interorganizational outcomes and (2) depend on those inter-firm relationships and networks to accomplish their goals.

In essence, this type of transorganization development (TOD) reflects large-scale, long-term systematic efforts at planned change, involving multiple, simultaneous interventions across organizations, targeting the interorganizational entity itself, the individual organizations involved, and the members of those firms. On a general level, this approach has been conceptualized as a four-step process involving: (1) the *identification* of the relevant system and appropriate representatives; (2) *convention* of those representatives to initiate linkage processes; (3) *organization* of the system to regularize behaviors; and (4) *evaluation* of the system in terms of the intended effects and outcomes (Cummings, 1984). Emphasis is increasingly being placed on an array of interorganizational linkages, ranging from hierarchy to market, from the formal consolidation of different firms to informal cooperative ventures between organizations. As suggested above, a key goal is to work toward developing an underlying commitment and ability to engage in joint problem solving and collaborative work efforts.

As a reflection of this TOD orientation, the volume focuses on three main types of interorganizational strategy and their concomitant challenges: (1) intervening in mergers and acquisitions; (2) developing strate-

gic alliances and partnerships, with an emphasis on inter-firm learning and competence-building; and (3) enhancing interorganizational networks.

INTERVENING IN MERGERS AND ACQUISITIONS

Over the past two decades, a planned change approach to merger and acquisition (M&A) integration has become increasingly important. Compared to the financial orientation of many past M&As, where being overleveraged was the main risk, our present environment is witness to deals that are more strategically driven—influenced by technological advances, industry overcapacity, shifting market demands and expectations, and related global pressures for cost cutting. Yet, there are lingering questions about the overall efficacy of mergers and acquisitions as a value-creation strategy. As research over the past few decades has indicated, less than one-third of all M&As actually achieve the operational, financial and strategic objectives suggested in pre-combination feasibility studies (cf. Coff, 2002; Elsass & Viega, 1994; Lubatkin, 1983).

Due to the strategic focus of today's mergers and acquisitions, the main risks now reflect concerns around assimilation and integration (Marks, 1997; Pritchett & Gilbreath, 1996), pressures that have created a vital need for focused intervention and combination-related support. Failure to develop and implement a thoughtful integration plan, which quickly creates an analytic vacuum that fills with dilemmas and conflicts (see Legare, 1998), readily contributes to the poor performance of merged and acquired firms.

The most essential elements in managing an effective merger or acquisition emerge from an understanding of (1) the M&A process itself, (2) its technical and human dimensions, (3) its cultural overtones, and (4) the reality that all real value creation occurs after the M&A takes place. Within this context, the basic goal of M&A management is to move through different stages of change—from precombination assessment and planning through consolidation to postcombination integration—while managing and coping with ambiguities in organizational structures, cultural values and expectations, behavioral norms, and roles and positions. To compound this situation, analyses of critical financial, strategic, and organizational factors tend to be sufficiently fragmented that the managers and executives of the two organizations usually have differing, and often competing, views on how to consolidate the firms (Jemison & Sitkin, 1986). Thus, what may initially appear to be attractive synergies between two companies often go unrealized because of incompatible structures, policies or systems, tensions between members of the different

organizations, and sharply divergent cultures (Buono & Bowditch, 1989; Marks & Mirvis, 1998).

A growing body of research has documented the reality that such combinations—even those that are suggested to be friendly in nature—can have far-reaching, dysfunctional effects on those involved. Although initial reactions may appear to be characterized by goodwill and a cooperative spirit and senior management talks about the promise of the combined entity, the actual experience of organizational members is often in stark contrast to such lofty characterizations (see Buono, in press; Buono & Bowditch, 1989). In fact, a merger or acquisition can sufficiently transform the structures, cultures, and employment prospects of one or both of the organizations that they cause organizational members to feel stressed, angry, disoriented, frustrated, confused, and even frightened. Clearly, such reactions pose significant challenges for the postcombination integration process. Referred to by some observers as the *merger syndrome* (Mirvis & Marks, 1992), these reactions reflect high levels of anxiety and stressful reactions, heightened self-interest and preoccupation with the combination, culture clashes, and restricted communication and crisis management orientations, creating problems at both the individual and organizational levels. While these human reactions are more salient in certain types of M&As—especially those involving the need to draw on combined intellectual capital and hold on to key people (see Bower, 2001)—it is clear that the experience and reality of the M&A process demand focused intervention and support.

This section of the book contains four chapters that provide insight, guidance, and prescription for confronting these myriad dynamics. The initial chapter by Mitchell Lee Marks provides a general overview of merger- and acquisition-related challenges and illustrative interventions associated with the different stages of the M&A process. Marks argues that the nature of combinations themselves—especially the secrecy that shrouds negotiations and the anxiety associated with the change—runs counter to the requirements of rigorous research. As a result, efforts to learn why so many mergers and acquisitions fail—and to understand the actions that can put these combinations on a successful course—have, to date, yielded limited insights.

Drawing on over 70 cases of merger and acquisition that he has been involved with, Marks provides a broad framework to understand and illustrate the range of challenges that consultants and the combining organizations face. He identifies three phases of the combination process—pre-M&A planning, the combination itself, and post-M&A integration—that must be successfully managed to make a merger or acquisition work. For each phase, key points (and weaknesses) that influence combination suc-

cess (and failure) are described and illustrative consulting interventions are proposed.

As he convincingly demonstrates, even when guided by a sound strategy and carefully designed implementation plan, M&As are incredibly difficult events to manage. The sheer scope of the change itself, the huge number of decisions that have to be made, and the myriad human reactions to change and transition entangle the combination process and encumber the realization of strategic synergies. Pointing to the critical role of execution and implementation, Marks argues that consultants who fully understand the human and cultural realities inherent in integration efforts can add tremendous value by directing the combination on a successful course toward achieving its financial and strategic objectives, helping the combined entity become "more than the sum of its parts."

Illustrating the dynamics that Marks discusses, the next two chapters present case studies of merger interventions. Vicki LaFarge, Aaron Nurick, Ellen Leiter, and Anthony Buono present a workshop-based intervention framework focused on developing participant ability to manage and cope with the tensions and stresses involved in a merger. As the authors argue, while early training interventions can be very useful—especially for organizational members who have not personally experienced a merger or acquisition—many combination-related workshops "teach about" merger dynamics in relatively didactic, emotionally distant ways. Examining the limitations of this approach, the chapter presents a strategy of "teaching to" the underlying issues inherent in the M&A process, helping participants give voice to the underlying personal, interpersonal and intergroup dynamics they are experiencing.

Based on a consulting intervention during a merger between two hospitals, the chapter outlines an approach for dealing with the human dynamics associated with the merger process, incorporating work with organizational members on precombination anxieties as well as postmerger concerns. As LaFarge and her colleagues argue, since the perceptions, feelings and reactions of organizational members are an inherent part of any merger, it is important to provide these individuals with sufficient insight and skill to enable them to deal with the emotional realities that permeate their experience. The process of "teaching to" the emotions surrounding the merger, rather than the context of the merger per se, attempts to develop an initial awareness of and the eventual ability to moderate the personal, interpersonal, group and intergroup problems that typically emerge before and after a merger. The goal is to create a stronger foundation for the ultimate merging of the human resources from two previously autonomous organizations, identifying psychological and cultural impediments and specific strategies for dealing with them.

The next chapter by James Fairfield-Sonn continues this theme, underscoring that while the front-end of most mergers is full of great expectations, the deal is never really done until the back-end cultural integration process has been addressed. Unfortunately, many executives underestimate the amount of time and depth of attention that must be devoted to successfully address the deep-seated cultural differences that exist in the wake of a merger—which, he argues, is one of the reasons why so many ultimately fail. The chapter describes the year-and-a-half long process one senior management team of a major health maintenance organization (HMO) went through to confront their identity-related issues as part of their efforts to create a stronger foundation to support their rapidly expanding national business.

Drawing on a five-stage merger intervention, Fairfield-Sonn emphasizes two key principles of cultural change that the leaders of the new organization continually stressed as they worked toward crafting a new identity for the HMO. First, to be successful in this effort, the leadership team felt that the legacy companies would need to move beyond their defensive interests in maintaining the past and on to "a new place." Second, the primary responsibility for guiding this cultural transition rested in the hands of the senior management team—if they personally changed, in terms of both their attitudes and behaviors, they felt they could influence change throughout the rest of the combined organization.

The chapter examines five generic phases in the culture change process used in this merger: (1) unfreezing the senior management team from current ways of thinking; (2) initiating the move to a new identity; (3) celebrating early successes in the evolution of the culture of the organization; (4) locking in gains and starting to make the new values a way of doing business; and finally (5) seeking ways to fully embed the new values in the organization's human resource management systems. As he concludes, fostering cultural change in the wake of a major merger requires much deeper conversations than ordinarily occur among organizational members, especially those on the leadership team. These ongoing conversations must be melded into a consensus about the shape and substance of future directions for the combined firm, which then need to be communicated throughout the organization, stimulating additional conversations and actions at all organizational levels.

The final chapter in this section by Judith Gebhardt delves into the due diligence process, differentiating between traditional technically-oriented due diligence and behavioral due diligence. Gebhardt argues that there have always been critical intangible factors associated with the technical dimensions of due diligence assessment, particularly in accounting-based and legal analyses. The time has come, she suggests, to make this focus a more explicit and expanded part of due diligence review.

Building on the idea of intangible capital, she suggests that this "not touchable, sometimes not visible" dimension of organizational life—which includes a firm's intellectual property, its culture, the relational capital that exits across organizational members and key stakeholders, and human capital with its broader behavioral, psychological, and emotional factors—comprises a major part of an organization's value. Since a key dimension of successful due diligence assessment is "asking the right questions," Gebhardt argues that due diligence teams should include experts from an array of professions—including management consultants with behavioral science backgrounds. If such assessments are limited to financial professionals and lawyers, questions about the more intangible, "softer" aspects of an organization are likely to be overlooked or ignored outright. The chapter concludes with a call for more active involvement by human resource professionals and management consultants, working closely with the accountants and lawyers during due diligence review, to provide a more accurate view of the strengths and weaknesses of acquisition targets and merger partners.

DEVELOPING STRATEGIC ALLIANCES AND PARTNERSHIPS: ENHANCING INTERORGANIZATIONAL LEARNING

Just as mergers and acquisitions are changing the corporate landscape, interorganizational partnerships and strategic alliances are also redefining traditional boundaries between organizations. Indeed, in many instances collaboration and cooperation between firms are being taken to such levels that it is often difficult to precisely determine where one company ends and the other begins.

Compared to the structured mentality of traditional hierarchies, there is a distinct and quite different mindset associated with partnerships and alliances. For example, in contrast to traditional vendor-customer agreements, which are tactical, transactional arrangements, in its ideal form partnering via a strategic alliance dictates creating a truly collaborative working relationship supported by strong social, economic, service, and technical ties, with the intent of creating mutual benefit and value across the organizations. A shared vision, clear communication, inter-firm trust building, and collaborative sharing of expertise grounded in a compelling business strategy are fundamental requirements from the outset (Buono, 1997a; Doz & Hamel, 1998; Lynch, 1993).

Given these basic requirements, there is an inherent fragility in strategic partnerships, a reality that makes them quite complex to manage. While partnerships and alliances may not involve the level of anxiety and stress among organizational members as found in M&As, they still face a host of

managerial and organizational difficulties. Conflicts over which partner has the most control, changes in partners' objectives over time, different management styles and organizational cultures, lack of trust, and declining interest from either partner can easily contribute to failure. Moreover, due to competing pressures and work demands, managers and employees often direct their attention toward other job responsibilities and away from the partnership itself (cf. Buono, 1991; Kanter, 1994; Lynch, 1993). As the chapters in this section readily indicate, consultants and change agents working across organizational boundaries must be prepared to (1) mobilize different, at times opposing, coalitions, (2) create alternative definitions of key issues, (3) frame and reframe relevant perceptions, and (4) alter resource allocation plans among of a host of other challenges.

The first chapter by Daniele Chauvel, Nicolas Rolland, and Charles Despres examines the organizational characteristics that favor efficient learning in what they refer to as "learning-based alliances." The authors develop a framework of the different conditions (strategic intent, culture, trust, and alliance form) and dynamics (transparency and learning capacity) that favor effective knowledge transfer between partners.

Based on structured interviews in 52 multinational companies, Chauvel and her colleagues (1) examine the processes these firms used to manage knowledge in their strategic alliances and (2) identify the key success factors they ascribed to their success in sharing and building on this knowledge. Drawing on a series of case vignettes, they differentiate (1) the nature of learning itself (distinguishing organizational learning *within* the alliance from organizational learning that may occur *between* the alliance and a parent firm), and (2) the nature of the knowledge being transferred (distinguishing technological knowledge from managerial knowledge). As they suggest, when trust is initially low in an alliance developing a common technical knowledge base encourages effective knowledge transfer. Yet, even as experience with and trust in an alliance partner have developed, the actual sharing of managerial knowledge (e.g., general management insight, alliance management, client-related issues, human resources, marketing and information systems) remains problematic. Their analysis focuses on three primary intervening factors—learning intent, culture-based barriers, and learning capacity—that shape and influence different aspects of the learning process.

Continuing the theme of cross-organizational learning, Iris Berdrow examines learning dynamics in international partnerships. As she suggests, while these alliances are often touted as significant learning vehicles, evidence indicates that while the *potential* for learning may exist it is often not achieved. Since true learning in such complex situations is a social, group-level phenomenon, if learning is to occur—both within and across partner

organizations—specific learning connections within the alliance network must be created, managed and leveraged.

Berdrow focuses on three types of learning connections—points of contact between individuals in the alliance—ranging from (1) one-to-one (e.g., designated counterpart relationships) to (2) one-to-many (e.g., liaisons) and (3) many-to-one (e.g., training and development initiatives) linkages. Based on a series of case vignettes, she illustrates how these different points of contact operate, and how they both influence and are influenced by the nature of the relationship in question. Drawing on this analysis, Berdrow identifies ways in which consultants can help client organizations develop these connections, enhancing their performance and facilitating knowledge exchange and partnership-based learning.

The next chapter by Valerie Claude-Gaudillat and Bertrand Quelin examines how firms attempt to develop new competencies in the context of an emerging industry. The authors present an exploratory case study of Internet-based, e-consulting, with a focus on the strategies of three representative management-consulting firms—Razorfish (a specialized newcomer to the e-consulting arena), McKinsey (as a traditional consulting firm) and IBM Global Services (a technology-based firm).

Drawing on the resource-based view of the firm and transaction-cost economics, the chapter develops a theoretical framework that attempts to predict how firms will attempt to obtain and develop new competencies—through internal development, acquisitions and/or alliances—when they are confronted with the introduction of a disruptive innovation. Their model focuses on the influence exerted by four key factors—the relative attractiveness, diversity, appropriability, and relatedness of the sought after competence base. As Claude-Gaudillat and Quelin suggest, while management-consulting firms have tended to acquire related competencies through their own internal development, alliances and acquisitions have become an increasingly important strategy to secure unrelated competencies. The more attractive, more diverse and less appropriable the competence base, the more likely these firms will turn to alliances in an attempt to gain access to these desired competencies.

ENHANCING INTER-FIRM NETWORKS

As the preceding section suggests, we are in the midst of a significant organizational revolution as a growing number of firms and their management are moving away from centrally coordinated, multileveled hierarchies toward a variety of organizational forms that bear a greater resemblance to intricate, diamond-like structures and rotating spheres than traditional pyramids. Business organizations, which in the not too distant past were

defined almost exclusively by internal functions and boundaries, now strategically involve a range of external stakeholders including vendors and suppliers, customers, and even competitors as collaborators. Some theorists even argue that this historic transition away from inwardly-focused, mechanistic bureaucracies toward more organic structures that focus on markets rather than hierarchy represents one of the most striking changes in management thought (cf. Bergquist, Betwee, & Meuel, 1995; Halal, 1993; Miles & Snow, 1994)

The basic, hierarchical model of organization that emerged during the relatively simple conditions of the industrial age, of course, was highly effective at containing costs and controlling routine tasks. The reality of the contemporary environment, however, is far from the stable and predictable nature of that past business world. Having entered enter the twenty-first century, global competition has created myriad pressures on corporations to continue to reduce costs while simultaneously increasing innovation and quality, precipitating a literal delayering of organizational structures. Advanced information technologies are shattering traditional organizational boundaries created by time, territory, and technology. As a result, a growing number of companies are reorganizing themselves to focus on the needs and dictates of the market rather than the hierarchy.

Designed to be flexible and adaptable to rapidly changing environments, these inter-firm networks have a number of advantages over traditional, more bureaucratic and hierarchical forms of organization. In addition to being more agile and fast moving, organizational networks require less capital to operate, carry lower overhead expenses, are able to tap outside technology with relative ease, and, in general, are comparatively entrepreneurial in character. Organizational networks provide a level of inter-firm relationship that allows member firms to gain the advantages of size while remaining small. As a result, an increasing number of organizations are becoming, in effect, multiorganizational in nature, comprising a nexus of relationships (e.g., value-added partnerships, subcontracting, licensing activities) with both domestic and foreign firms.

Although these inter-firm arrangements offer organizations the opportunity to expand their strategic options beyond existing capabilities and/or current product-market domains, as the chapters in this section indicate they also create a number of organizational and managerial difficulties. Thus, while network-based organizational forms appear to be useful as a way for organizations to cope with rapidly changing environments, similar to the demands created by M&A integration and strategic partnerships, such change necessitates the development of new perspectives and understandings of management and organization.

According to Joerg Sydow and Arnold Windeler, one of the key challenges inherent in this interorganizational form is the need to influence

the formation and evolution of the network without being able to assume control, either over its conditions or the consequences of the respective actions of its members. Using structuration theory, a process-based perspective that focuses on social practices, they examine network management as both a function and an institution. Their dual focus—on structure and action—provides a multilevel perspective on network creation and management, incorporating both the knowledge and ability of managers and consultants (as agents) and the importance of the structural properties of the social system itself.

The chapter uses a case from the German photonics industry to illustrate the reflexive development of such inter-firm arrangements on the network itself and its larger field. As Sydow and Windeler argue, through their actions, managers and consultants—intentionally as well as unintentionally—influence the development of the network. Since these developmental processes are often characterized by tension and contradiction (e.g. between trust and control), network managers must be able to effectively handle this tension if they wish to create the cooperative, reciprocal, and complex interorganizational relationships that are requisites for success. An underlying challenge for consultants is the need to confront the subtler, multilevel power structures that exist in these networks, which are typically far less obvious than those found in more traditional, hierarchical organizations. A related challenge is to be able to simultaneously meet the needs of several clients—in different organizations, and often with different needs and different expectations—that are part of the network.

The next chapter by Eric Davoine continues this general theme, examining the emergence of public–private partnerships (PPPs) with an emphasis on recent developments in the technology policies of European Organization for Economic Cooperation and Development (OECD) countries. Davoine explores the nature of these PPP innovation networks, the various reasons why they have become a major instrument of technology policy, and some of the inherent difficulties and problems associated with them. As he suggests, while there is a tremendous upside to these networks, there are myriad possible dysfunctions as well as the necessary cooperation between network members can be readily constrained due to mismatches or differences in their underlying logic and orientation.

The chapter draws on the COVOSECO project, a European Union-financed action research project that involves four university-based research institutes and two consulting firms. The project's main goal is to enhance collaboration in university, research institute, and business firm networks through the creation of evaluation and intervention tools. As an illustration of this initiative, Davoine discusses the "Anechoic Chamber" network project, a cooperative development venture between five partners: the regional government (investor), a major French motorcycle producer

(investor), a university, and two consulting agencies (one that specializes in acoustics and another in regional economic development). The project's goal is to develop a studio to test acoustic noises and related nuisances in motor vehicles. The discussion focuses on the ways in which management consulting interventions—based on action research, empowerment, and socioeconomic assessment—can be used to enhance both the functioning and evaluation of these networks.

In the following chapter, Michel Ferray focuses on how many successful high-tech companies are using venture capital activities to monitor and gain access to technological innovations. Although traditional strategic theory recommends that firms internalize their R&D processes as a way of maintaining a competitive advantage, he suggests that adherence to such conventional approaches have led many high-tech companies to miss significant technological breakthroughs. Drawing on examples from the Silicon Valley, Ferray points out that many of the most successful high-tech companies (such as Cisco Systems, Intel, and Sun) have been externalizing their research through a series of corporate venturing initiatives. In essence, these companies are creating a portfolio of different technologies by taking a minority equity position in young, unlisted companies that have substantial growth prospects. This network-based strategy provides the companies with (1) advance warning of potentially disruptive technological and market developments and (2) specific opportunities for commercial relationships with the smaller firm they have invested in (e.g., OEM deals, licensing agreements, joint ventures, research contracts).

The chapter examines the various factors—geographical and physical proximity, the social capital held by the decision maker, and the utility of resources available for exchange—that allow these large companies to gain access to and exert influence on the type of network-based industrial system that exists in the Silicon Valley. Ferray also probes the ramifications these networks have for consulting interventions in terms of how they (1) enlarge the scope of intervention, (2) require analysis of the internal *and* external social networks that underpin their clients' activities, and (3) call for new managerial and organizational devices that facilitate the business-related social networks of their clients. As he concludes, an underlying challenge for consultants is the need to move beyond emphases on improving coordination inside their client's organization to a focus on enhancing the interaction between the client, partnering organizations, and the larger socioeconomic environment.

This section concludes with two case studies that capture some of the dynamics associated with success and failure in network development. Jan Twombly and Jeffrey Shuman detail the creation of the Gennova Group, a collaborative community of professional service providers. This collaborative community is envisioned as a seamless alliance of trusting, purposeful and

mutually beneficial relationships between trading partners (in this instance, consultants) and their customers, where everyone benefits by "focusing on and profitably satisfying" the needs of the consumer group that defines the community. Described as the "professional community of the future," the Gennova Group strives to meet the needs of both clients (companies that have become disenchanted with traditional professional services firms) and its members (professional service providers who work on their own but desire the resources and fellowship offered by a large firm).

The authors analyze the initial formation and launch of this network, which consists of (1) a broad array of professionals who act as business partners, (2) a choreographer who builds and ties the community together, and (3) knowledgeable and powerful customers. The multifaceted challenge, as Twombly and Shuman underscore, is to sufficiently understand the end customer's needs and to translate that insight into trusting and profitable "win-win" relationships for all parties. Their story takes you through the initial processes and interactions—including the "barn raising," design team initiatives, "market storm," and "hive"—that ultimately created the community. The chapter concludes with a discussion of the challenges and benefits associated with this type of networked community and some of the lessons learned for those interested in embarking on such ventures.

While Twombly and Shuman describe the initial stages of a successful venture, the final chapter by Marilyn Harris and Guilan Wang reveals the cultural and political problems that can readily derail network plans. Their story reveals the fragile nature of such networks, especially in their formative stages, as implementation shortcomings can quickly undermine strategy and vision.

Drawing on an attempt to create a network-based applied research institute at a U.S. university, Harris and Wang are very open as they reflect on their own shortcomings as change agents in the process as well as problems and deficiencies in the system itself. Their discussion focuses on what went wrong, what might have been done differently, and the need to learn from failure. As they suggest, many successful networks emerge from "failures," particularly in multiphased, long-term change projects. It is therefore important to anticipate failure in different activities, recognize it as soon as possible, and act accordingly to achieve ultimate success. As their experience indicates, building sustainable networks demands unending communication and cooperation between the different players. The chapter concludes with recommendations for management consultants working with such networks, including the need to make tacit assumptions more explicit, ensure the development of open, trustful relationships between participants, and respond to the demands created by a true action research strategy.

THE COMING AGE OF INTERORGANIZATIONAL INTERVENTIONS

The types of interorganizational relationships discussed in this volume provide significant opportunity to gain competitive advantage, leverage critical capabilities, gain access to new competencies, enhance the flow of innovation, and/or increase flexibility and agility in responding to market, technological, and social change. Yet, while promising, as reflected in the different chapters the effectiveness and ultimate success of any of these interorganizational endeavors depends, in large part, on what may be thought of as the "coalition game": an interorganizational venture will succeed only as long as the benefits of membership or interorganization activity are greater than the costs of participation for individual members (see Kang, 1990, pp. 34–35). Yet, instead of openly participating and building a foundation for sustainable interaction, far too many organizations enter these ventures with a "first-in/first-out" strategy, intended to reap the benefits accruing to early movers and avoid possible victimization by partner firms (see Hwang & Burgers, 1997).

As the need to ensure the willingness of individuals, groups, and organizations to collaborate and cooperate becomes increasingly important (Ring & Van de Ven, 1994), the types of interventions and orientations discussed in this volume will become critical components of successful interorganizational strategies. Questions, of course, still remain as to whether interventions that focus on promoting collaborative values and behaviors are sufficiently powerful to overcome many of the power and dominance relations that exist between organizations (see, e.g., Cummings, 1984). These tensions are especially potent given the lingering competitive sentiments and underlying struggle for scarce resources in today's global marketplace. As the chapters in this volume have indicated, there are many obstacles that can prevent successful interorganizational strategies. Just because organizations may share a particular domain or a common set of interests does not necessarily mean that they will make compatible partners—whether in a merger or acquisition, partnership, or network. Conflicting interests often stand in the way of joint interactions that would make a coalition strategy the rationale choice.

Awareness of these problems is one of the first steps in enhancing our ability to effectively deal with such issues. The contributors to this volume have provided us with an array of tools and perspectives to help managers, consultants, and their organizations better understand the dynamics in mergers, acquisitions, partnership, and networks, pointing to ways in which these inter-firm relationships can be strengthened. As we continue to wrestle with intervention strategies that facilitate and enhance cross-organizational and cross-member trust, commitment, knowledge sharing, performance,

and success, it is my hope that this volume will add to our developing insights and consulting endeavors in these interorganizational ventures.

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Part I

INTERVENING IN MERGERS AND ACQUISITIONS

CHAPTER 1

MAKING MERGERS AND ACQUISITIONS WORK

A Guide to Consulting Interventions

Mitchell Lee Marks

Fewer than 25 percent of mergers and acquisitions achieve their financial objectives, as measured in a variety of ways including share value, return on investment, and postcombination profitability. Many factors account for this dismal track record: buying the wrong company, paying the wrong price, making the deal at the wrong time, and so on. Another factor, however, seems to be at the core of many failed combinations—the process through which the deal itself is conceived and executed.

Corporate combinations—the merger of separate entities into a new firm or the acquisition of one firm by another—have become a regular component of the managerial repertoire. Many factors prompt executives to acquire or merge with another organization. Perhaps a combination can help a company pursue a strategy that would otherwise be too costly, risky, or technologically advanced to achieve independently. Other times, deals are opportunistic, such as when a troubled competitor seeks a savior or when a bidding war ensues after a firm is "put into play." Still other times, acquisitions can be defensive moves to protect market share in a declining or consolidating industry.

Enhancing Inter-firm Networks and Interorganizational Strategies, pages 3–30
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The overarching reason for combining with another organization is the belief that the union will provide for the attainment of strategic goals more quickly and inexpensively than if the company acted on its own (Haspeslagh & Jamison, 1991). In this era of intense and turbulent change involving rapid technological advances and ever increasing globalization, combinations also enable organizations to gain flexibility, leverage competencies, share resources, and create opportunities that otherwise would be inconceivable.

Despite their frequency, corporate combinations have proven difficult events for organizational researchers to assess. The nature of "doing a deal" runs counter to the requirements of sound research. For both legal and competitive reasons, merger negotiations are shrouded in secrecy. While this reality hinders data collection, it also means that researchers cannot anticipate and identify research sites prior to the combination occurring. Even on the announcement of a deal, there remain more questions than answers. Executives are harried and employees anxious—no one has the time or inclination to cooperate with a research program. And, combinations pose some substantial methodological dilemmas. When, for example, does a merger "begin"—as it is conceived, when it is announced, or when it receives legal approval? Similarly, there is no discrete "ending" to a merger.

As a result, most research investigations of the process through which combinations have been managed tend to be retrospective. A typical research design asks senior executives to assess the relative influence of various factors on the outcomes of their past combination activities. With 20/20 hindsight, executives acknowledge the human, organizational, and cultural aspects of the combination management process. As the dismal track record attests, however, lessons learned from past combinations are not being applied in a systematic manner to the management of current combinations.

This chapter reports lessons learned from two decades of research and consultation in mergers and acquisitions. In particular, it identifies the three phases of a combination and the weak points in each phase that typically result in disappointing financial and strategic results. The discussion then turns to examples of consulting approaches that can be used in each phase.

A TWENTY-YEAR RESEARCH PROGRAM

For more than 20 years, organizational psychologist Philip Mirvis and I have been involved in an action research program investigating and addressing human, cultural, and organizational aspects of corporate combinations (Marks & Mirvis, 1998). Our research program into the manage-

ment of the combination process began serendipitously. In 1977, we were conducting a human resources accounting project with a publicly traded manufacturing firm. We collected a variety of HR data—employee attitude survey results, promotional rates for women and minorities, health and safety records, and so on—and intended to publish the data in the company's annual report to its shareholders and then survey the shareholders to determine the extent to which the human factors influenced their investment decisions. The late 1970s was the heyday of corporate raiders, however, and right before the annual report went to press our research site was the victim of an unfriendly takeover attempt. After determining the potential buyer unsuitable—it had a track record of milking the profits of subsidiaries—the leadership of the manufacturing firm found a third party to act as its "white knight" acquirer. The bottom line was that all involved experienced considerable loss. The management team lost its independence. We lost our research study—no longer publicly traded, the organization had neither an annual report nor shareholders to survey.

What we gained, however, was an initial wave of data collected prior to any awareness of the ensuing acquisition. Over the following four years, I collected two more waves of data and tracked the impact of the acquisition on the organization, its people, and its culture. Since then, I have participated as researcher or consultant in over 70 cases of mergers and acquisitions. These combinations have involved large, medium and small companies, have been friendly and unfriendly, and have spanned a broad range of industry sectors—including financial services, telecommunication, high tech, health care, manufacturing, professional services, entertainment, and government. Some of the combinations were rare cases of true mergers—the predecessor companies both owning 50 percent and forming a new identity for the combined entity. Others have been outright acquisitions, where the lead company absorbs the target. And a few have been reverse mergers in which the lead company folds its operations into those of the acquired company.

Combination Phases

Early in our research program, Mirvis and I collaborated with the Management Analysis Center in a study of combinations in banking and finance (Management Analysis Center, 1985). This research showed that significant differences could be identified between "typical" and "successful" cases by breaking the transition from independent to integrated entities into three distinct phases (see Table 1):

- *Precombination phase*—as the deal is conceived and negotiated by executives and then legally approved by shareholders and regulators
- *Combination phase*—as integration planning ensues and implementation decisions are made.
- *Postcombination phase*—as the combined entity and its people regroup from initial implementation and the new organization settles in.

Table 1.1. Combination Phases

Phase	*Typical Emphasis*	*Successful Emphasis*
Pre-combination	Financial	Strategic
Combination	Political	Combination Planning
Post-combination	Damage Control	Flexibility

The Precombination Phase

In the precombination phase, much of the emphasis in the typical case was focused on the financial implications. Buyers concentrated on the "numbers": what the target was worth, what price premium, if any, to pay, what the tax implications were, and how to structure the transaction. The decision to do a deal typically was thus framed in terms of the combined balance sheet of the companies, projected cash flows, and hoped for return on investment.

Two interrelated human factors added to this financial bias. First, members of the "buy team" in most instances came from financial positions or backgrounds. They brought a financial mindset to their study of a partner and, as a result, their judgments about synergies were mostly informed by financial models and ratios. They often did not know very much about, say, engineering, manufacturing, or marketing nor did they bring an experienced eye to assessments of a partner's capabilities in these regards. Second, there was a tendency for "hard" criteria to drive out "soft" matters in these cases. If the numbers looked good, any doubts about, say, organizational or cultural differences tended to be scoffed at and dismissed.

In the successful cases, by contrast, buyers brought a strategic mindset to the deal. But there was more to it than an overarching aim and intent. Successful buyers also had a clear definition of specific synergies they sought in a combination and concentrated on testing them well before momentum built and any negotiations commenced. Here, too, human factors played a part. For instance, members of the buy team in successful cases came from technical and operational, as well as financial, positions. And during the "scouting" phase, they dug deep into the operations and markets of a candidate when gauging its "fit."

Sensible buyers considered carefully the risks and problems that might have turned a strategically sound deal sour. This does not mean that the financial analyses were neglected or that they were any less important to success. To the contrary, what put combinations on the road toward success was both an in-depth financial understanding of a proposed combination as well as a serious examination of what it would take to produce desired financial results.

The Combination Phase

After receiving legal clearance and the deal became a reality, politics predominated in typical cases. Oftentimes, this was pure power politics: the buyer decided how to put the two organizations together. USAir's purchase of Piedmont Airlines provides an insightful example. The buyer had a poor reservation system and woeful customer service, so much so that passengers deemed it "Useless Air." Piedmont had a better system and cheerful staff. Whose reservation system was adopted? This first pass located it in USAir. Why? Who bought whom! Even in cases where a buyer sought to combine on the basis of operational synergies, power politics intruded. Corporate staffers arrived with their charts of accounts, reporting cycles, planning methodologies, and the like and imposed them on subsidiaries. No matter that these systems seldom enhanced growth and often proved unworkable for the needs and business cycles of an acquired firm. Why did companies insist that subsidiaries conform to their bureaucracy? We termed this tendency corporate staff "hegemony."

Political game playing ran rampant in many combinations as individuals jockeyed for power and positions and management teams fended off overtures for control from the other side by hiding information or playing dumb. Transition task forces may have been convened to recommend integration options in the typical case, but personal empire building and conflictual group dynamics blocked their efforts to seek out and capture the true synergies. Meanwhile, culture clash revved up as people focused on differences between the partners and fixated on which side won what battles rather than join together to build a sense of one team going forward.

In successful combinations, a planning emphasis prevailed. There still was politicking and gambits for self-preservation, but much of the energy that usually went into gamesmanship got directed more positively into combination planning. Leadership clarified the critical success factors to guide decision making and oversaw the planning process to ensure that sources of synergy were realized. Managers and employees came together to discuss and debate combination options and, when the process was well managed, high-quality combination decisions resulted.

The Postcombination Phase

Up to 18 months after a combination, we would hear executives bemoan that their best talent had jumped ship, productivity had "gone to hell in a handbag," and culture clash remained thick. Often these dynamics ensued because executives grew impatient with planning and hurried implementation to the extent that their two companies failed to integrate and resulted in serious declines in everything from employee morale to customer satisfaction. While options do exist to turn around such situations, obviously the better course of action is to preclude the need for damage control by following the successful "road map" from the onset. With a sound strategy guiding the precombination phase, employees gain confidence in their leadership knowing that organizational enhancements are likely to result from the combination. This strategy guides decision making during the combination phase and detracts from the "us versus them" battles and political gambits that otherwise prevail. Then, in the postcombination phase, flexibility guides implementation. Midcourse corrections are common in successful combinations, and employees take these in stride when they understand the strategic thrust of a deal and perceive planning to occur through an above-board process.

CONSULTATIONS TO FACILITATE SUCCESSFUL COMBINATIONS

What can consultants do to contribute to an effectively managed combination? A comprehensive listing of consulting activities cannot be contained here. However, the remainder of this chapter discusses consulting approaches to some of the key issues that afflict each phase of the merger and acquisition process.

A Caveat Regarding Combination Consulting Advice

With knowledge of the problems that plague each phase of a merger or acquisition, consultants can assist executives in designing and implementing a responsive combination management plan. Unfortunately, there is no one-size-fits all prescription for making mergers and acquisitions work. The dynamics of every deal are different. The most successful acquirers, I have found, know when to pull out their combination management playbook and apply lessons learned from earlier deals. But, they also have the discipline to know when to leave the book on the shelf and improvise a new approach.

The content and process of consultation varies widely from one deal to another. During the precombination phase, to illustrate, one would proceed differently if the lead company's senior team was unanimously aligned with the strategic rationale for doing a deal than if executives did not fully understand or support the business case. All combinations require some form of transition structure; the size, membership, and mission of the transition teams, however, will vary considerably according to the complexity of the organizations involved among many other variables. The requirements of postcombination team building also differ from case to case—according to the friendliness of the deal, the extent to which precombination teams are modified, the care with which any merger-related reductions in force were handled, and so on. But, attention to accelerating the development of postcombination teams invariably aids in helping employees let go of past affiliations and identifications and move forward in accepting new ones.

All of this indicates the need for accurate diagnosis at each of the three phases of a combination. That, perhaps, is the one universal rule of consulting in a combination—keep your ear to the ground and be flexible in responding. Doing so guides action at each phase.

The Precombination Phase

The precombination phase encompasses strategy setting, scouting, partner evaluation and selection, and deal making. Obviously, the quality of work conducted in this phase has a substantial influence on the eventual results of a combination. Consultation can address the key weak points that afflict typical acquisition programs in the precombination phase.

Issue: Poor Business Strategy or Weak Core Business

To begin, some buyers are not sure what they want to do in the marketplace and tend to follow fashion in their industry when it comes to merging or acquiring. This is particularly true in the case of industries where the market leaders make aggressive moves and followers either have to catch up or leave the game. The rapid-fire series of combinations in banking, telecommunications, entertainment, and petroleum exemplify this tendency. More frequent are cases where a buyer has access to a mountain of cash and no means of growing internally. Here they roll the dice in their choice of investment and selection of a partner. While the game can be exciting, it seldom yields any sustained payoff (Sirower, 1997).

Another problem is when buyers select acquisition as a substitute for fixing current business problems. At a manufacturing firm, a dying business line received "life support" from an acquisition in the form of new sales staff with new customer contacts. As it turned out, however, the patient was terminally

ill with worn out technology. Neither aggressive staff nor new customers could keep the business alive. It would have been better to have fixed or closed these failing businesses than try to revive them with fresh blood.

At other times, the core assumptions behind the combination are flawed. Kodak's acquisition of Sterling Drug, for example, never produced the synergies that Kodak anticipated would propel it into the very profitable pharmaceutical segment producing ethical drugs. After five years of poor earnings, Kodak acknowledged its mistake and divested Sterling.

Consultation: Advise the Client to Abandon Ship

When an organization is following the wrong business strategy or is suffering from a critical weakness in its core business, then an acquisition is not going to remedy the situation. However, many executives would rather take their cash, purchase a thriving competitor, and hope that the healthy patient cures the sick one. That is, they would rather buy something healthy than do the more difficult work of healing their core business. Of course, things turn out just the opposite of what the wishful thinking had hoped for—the improper strategy or the core business problem contaminates the previously healthy target. Acquisitions or mergers made in these situations are doomed to failure. There is little or nothing a consultant can do to shore up the ailing organization if senior leadership does not own up to the inherent business problems. The best advice to give here, then, is to abandon the acquisition. If the advice is not heeded, for the consultant the best strategy for the long term (though painful in the short term) is to abandon the sinking ship.

Issue: Combination Strategy/Rationale not Widely Understood or Supported

Equally debilitating is when the basic rationale underlying the decision to look for an acquisition or merger partner is not clear or when the fundamental criteria for selecting a target are not broadly understood. In some instances, corporate planners do not fully think through why they are acquiring a particular company and how that company fits specifically with their strategy. Literally, they set out to find a target when they are not clear why they want to join forces with it. In other cases, the small inner circle of senior executives and advisors clarifies a sound strategy for growth and a solid rationale for selecting a particular target yet the secrecy enveloping the deal making prevents other key managers from understanding and supporting the rationale.

Consultation: Develop a Shared Perspective of the Combination's Rationale and Its Desired End State

A few years ago, I received a call from the chief executive officer (CEO) of a high technology firm who had recently announced his company's first major acquisition. The company, a computer hardware maker, was strong

in the middle- and upper-segments of its product offering. Margins were high in these segments, yet most of the industry-wide growth was occurring in the lower-end of the product offering. Working with external advisors, the CEO came to the conclusion that he had to acquire a firm with expertise in the lower-end segment in order to achieve his company's expectations for revenue growth. There simply was not enough time in the "internet age" to meet revenue expectations through internal growth.

After negotiating the deal amidst great secrecy, the CEO announced the acquisition. On their own initiative, several senior executives from the acquiring company holed themselves away in a conference room where they hammered out what they called the "Integration Plan." When the CEO read the plan he found that, among other things, it called for the elimination of the to-be-acquired firm's R&D function. That is when he gave me a call. "Think about it," the CEO challenged me, "eliminating their R&D function would defeat the very purpose for doing the deal—it would eliminate all the engineers with expertise in the low end of the product line."

After listening to the CEO, I proposed a two-pronged intervention to guide the integration program. First was a series of one-on-one interviews with members of both companies' leadership teams. In my proposal to the CEO, I listed the outcomes of this activity:

- An assessment of the extent to which key players are or are not on the "same page" regarding the purpose of and expectations for the acquisition.
- Insight into key areas of agreement and disagreement within and between the leadership teams.
- Awareness of the dynamics that need to be addressed to make this integration succeed.
- An enhanced sense of how to structure the second part of the initial intervention.
- A "heads up" to the CEO of any critical issues that emerge from the interviews.
- The establishment of rapport between the consultant and executives from both partners.
- The opportunity to explain, one-on-one, to all key executives why this approach is being used to manage the integration.

Among other findings from the interviews, it was clear that even within the lead company there was not a consistent view of why the acquisition was occurring or what would be required to make it achieve its strategy. This insight influenced the design of the second part of the intervention. Rather than bring executives from the partners together, I argued that

executives from the buying company needed to go away by themselves to build understanding of and support for the acquisition strategy. This suggestion runs counter to the advice of some merger consultants, who push to bring the partners together as soon as possible to create the impression of a "one-team" mindset. If the lead team does not have a shared perspective on why the deal is occurring and what is required to make it succeed, however, then the additional step of working initially with the buying group is warranted.

A one-day offsite meeting was scheduled in which the CEO walked his management team through the rationale for the deal. I then fed back findings from my interviews to alert executives to the potential hindrances to achieving the integration strategy. The discussion put several previously "unspoken" issues in play and generated an earnest discussion of what the lead company needed to do prepare for a successful combination. The meeting culminated with the articulation of "critical success factors" for the integration process. These became the decision-making criteria that were used to assess recommendations for integration. One critical success factor, for example, was "penetrate the low-end of the product offering." Thus, later, when integration planning teams (comprised of executives from both partner companies) were initiated, they were given not just financial targets (e.g., cut X number of dollars out of the combined R&D budget) but were also given strategic decision-making criteria that literally kept the rationale for the deal front and center during integration planning and implementation.

Issue: Pressure to Do a Deal and Hurried Due Diligence

Another factor contributing to failed combinations is the tendency for internal merger and aquisition (M&A) specialists from corporate development and strategic planning to be motivated by the pressure to do a deal—any deal—rather than critically apply strategic, financial, and cultural criteria in assessing targets. At a diversified financial services firm, for example, corporate staff was charged by the company's executive committee to "formulate a growth strategy via acquisition" and "identify targets that fit our criteria." Not bringing forward a recommended target, the staffers figured, would be seen as failure and be an unacceptable response to the executive committee. After all was not it their job to locate candidates?

Psychological factors contribute to the pressure to do a deal. Few events in corporate life are more exhilarating than making an acquisition. Searching for the right target, stalking it, zeroing in, and then "bagging" it is considerably more exciting and energizing than the relatively mundane work of pushing paper and running numbers back at headquarters. Acquiring is winning: "we" get "them." It feels good to win, to be on top, and corporate staffers in most firms get caught up in the rush to do a deal.

That rush lasts through the deal making stage. As excitement over doing a deal escalates, staffers hurry due diligence. Certainly they look for any major liabilities in the target, but typically make an inadequate effort at truly digging into the candidate to understand what is being purchased, how well it might fit with the lead company's current businesses, and what potential pitfalls may lie ahead. Without a close look at the capabilities and characteristics of a partner, it is easy to overestimate synergies and underestimate the costs and headaches involved in integrating businesses.

Consultation: Broaden the Perspectives Engaged in the Deal-making Process

Someone has to counter the momentum that develops as senior executives and corporate staffers select acquisition candidates or merger partners. Internal or external consultants with an orientation toward matters organizational, human, and cultural, can broaden the traditionally narrow financial perspective that guides the search and selection of most combinations candidates. Consultants can offer valuable insight including assessments of competencies in target organization, investigations of what is motivating the seller to seek a buyer, and comparisons of human resources practices, corporate cultures, and organizational structures.

Importantly, the influence of this broader perspective is not limited to making a "go/no go" decision in the selection of a partner. Rather, the collection, dissemination, and discussion of data may influence the terms of the deal—say the price to be paid, the pace through which integration occurs, or the placement of acquired personnel in the lead organization. An early assessment of the capabilities of an acquired leadership team (and of their desire to stay on after the sale) can help a buyer understand the extent to which people from the lead company need to take a hands-on approach in running a new acquisition. Assessments of culture clash and organizational fit can lead to the creation of more realistic integration timetables. And, in general, an understanding of the human, cultural, and organizational issues can provide solid content for crafting communication messages at a time when most acquirers claim, "there is nothing to say."

A broader perspective to the precombination process also provides a symbolic value to buyers. Having members of the scouting or due diligence teams raise human, cultural, and organizational dynamics signals to the to-be-acquired employees that the lead company is sensitive to these matters. It breeds confidence that the buyer will manage the integration process well.

Another intervention for consultants during the precombination phase is to conduct cultural due diligence. I recently did this for an electronic distribution company that was seeking to make a series of acquisitions in various parts of the world. The CEO contacted me after his internal staff

identified several candidates that passed their financial and strategic filters. With multiple candidates in some countries, he wanted to know which potential targets would pose the fewest organizational and cultural challenges in integration. Fortunately, the early negotiations between the buyer and potential targets were extremely friendly. I had access to potential targets to interview executives and employees, observe meetings, and review archival data. In many cases, however, the negotiations are decidedly unfriendly and consultants do not have first-hand access to the potential target. In these cases, look to secondary sources—such as former employees, financial analysts, and professors who had studied the firms—to develop a study of the prevalent cultural and organizational dynamics. Obviously this data is not as robust as if collected directly in the organization, but it is better than no information at all and helps leadership attend to integration requirements.

The Combination Phase

The deal gets announced, receives legal approval, and is celebrated. The optimism that energizes the decision to purchase a target or merge with another firm carries into the combination phase in the form of high hopes and confident expectations. They soon are forgotten, however, as the grueling work of combination planning, the critical mass of personal stress and uncertainty, and the pervasive clash of cultures overwhelm people during the combination phase. Some common problems besiege organizations and their people during this period when the highs of doing a deal are replaced by the lows of making the deal work.

Issue: Integration Seen as a Distraction from "Real Work"

As responsibilities move from corporate staffers to line executives, reality hits hard. Operating managers see inflated projections and become overwhelmed at how they will meet the numbers. Typically, these executives are busy running their current businesses. Their performance evaluations and rewards are based on the extent to which they meet their core business targets, not on how well the integration goes. They see integration as a distraction from getting products and services to customers. Thus, what on paper seems like a comprehensive and sophisticated integration program, in practice is implemented in a rapid and shallow manner.

Consultation: Prepare and Motivate People for Managing the Integration Effectively

Consultants have a few leverage points for influencing preparedness and motivation for managing the combination well. One is to conduct a

"realistic merger preview" much like the classic "realistic job preview." The idea here is to alert executives to the common pitfalls in a combination and to provide a realistic accounting of all the resources required to integrate previously independent entities. When coupled with the collection of internal data that confirms the potential presence of these pitfalls, this intervention is especially powerful in creating a "felt need" for giving the work of integration management the status and resources it requires.

Consultants can also advise clients on the effective use of rewards. Sometimes these are significant financial rewards. In the merger that created newsprint manufacturer Abitibi-Consolidated, a bonus scheme was created that rewarded transition team members for cost savings identified beyond the base line established by external analysts. Cost saving that doubled analysts' estimates were identified and participants received a bonus of close to a year's base salary. In most instances, however, the rewards are more symbolic—like having senior executives drop in on transition team meetings and surprise members with gift certificates and a message to "take your spouses out to dinner since they haven't seen you much during the long grueling months of integration planning." Another opportunity is to coach senior executives to clear a path for integration planning by reminding middle managers and front-line supervisors that transition team members need to be taken off of some assignments to fit integration planning into their schedules and by repeatedly promoting the work of integration planning in speech making, informal chats, and priority setting.

Some individuals will worry—legitimately—if they will be planning themselves out of a job. While on a few occasions some members of transition planning groups will find themselves out of a job because of redundancies or the elimination of positions in the posttransition organization, in the vast majority of cases planning team members survive with their assignments and career paths intact. This is especially true when organizations put their "best and brightest" performers on transition teams—the organization needs and wants this top talent. It helps to position participation on an integration planning team so that it is viewed as a privilege and not as drudgery—key talent will be pleased to be in the "inner circle" working on the integration. "High potentials" will also appreciate that they are being exposed to broader experiences in the organization.

Issue: A Crisis Management Approach is Adopted and the Deal's Strategic Intent and Critical Success Factors are Overlooked

Operating managers who get handed acquisitions frequently misunderstand the value-added potential of a target and ignore or downplay the critical success factors. Corporate strategists may have developed a clever game plan, but it is those at the operational level who have to play the game. Many are less visionary in their outlook and may not appreciate the strategic and political sensitivities in making the combination work. Rather than identify and mine sources of strategic synergy in integration planning, they take short cuts that save time but result in lowest common denominator decisions. In the short run, this works as managers can get their attention and energies focused back to their "real work"; in the long run, however, it results in disintegration of the partners and disappointing results.

Ironically, the transition from two independent organizations to one integrated entity can be a time for organizational enhancements and the building of a "one-team" mindset. It is during this relatively "unfrozen" period that first impressions are made of new partners and practices are adopted for the combined organization. If positive working relations prevail during the transition period, then individuals will feel confident about the process and comfortable with new colleagues. If, instead, domination and politicking are the norms, then employees will "refreeze" into "us versus them" camps and feel cheated by what they perceive as a flawed integration process.

As part of almost every integration strategy today, a transition structure is adopted to focus executive time and talent on how to obtain the strategic synergies in a combination. A transition structure is a temporary system that usually lasts three to six months but can extend up to a year to provide for coordination and support during implementation. A typical transition structure features functional integration teams that propose integration opportunities to a senior management steering committee. Yet, despite the wide use of such transition structures, most mergers and acquisitions fail to achieve their desired financial or strategic results. In fact, I recently was asked to conduct four "postmortems" of disappointing integrations (one each in the high technology, financial services, health care, and consumer products industries) and the most widely discussed issue in each case was the ineffectiveness of transition teams. Four specific complaints about the transition process were cited: the transition teams did not know their charter, did not know the decision-making criteria to be used in evaluating their recommendations, suffered from poor leadership, and were plagued by dysfunctional group dynamics.

Consultation: Design and Conduct a Transition Team Launch Program

The transition team process makes or breaks integration success. Teams either will identify and lock in synergies or will miss the opportunity to make organizational enhancements and go with the status quo. Team members either will have positive experiences and report back to the constituencies in their respective organizations that "our new partners really listen to us; we can work with these people" or will have negative experiences and spread the word that "these people don't care what we think and are just dominating us."

Since nearly every integration uses some form of transition structure and 75 percent still fail, the challenge is not merely to establish a transition structure. Rather, it is to launch and nurture an *effective* transition structure—one that brings the deal's potential synergies to life and builds positive working relations among the partners.

At the high technology company discussed above that made an acquisition to round out its product offering, I designed a launch process to address each of the four key complaints of integration teams:

- *Articulate charters.* Successful transition teams do not begin with a blank sheet of paper. Instead, they are guided by clear articulation of any assumptions or biases held by senior leadership (e.g., organizational architecture preferences such as wanting a decentralized versus a centralized organization, or cultural preferences such as pushing decision making down to the lowest practical levels). A charter designates what a transition team is supposed to do—select among current practices in the combination partners, look for new approaches, or develop an implementation plan for a preordained course of action. The charter is essential to transition team success because it directs members' energy during a period when people are already stretched between running the core business and managing the transition. Prior to initiating transition teams in the high technology company, we met with senior leadership to articulate any assumptions, predetermined decisions, or "sacred cows" that would influence the integration process. In staff areas like finance, the lead company CEO mandated that his firm's approach be adopted in the combined organization. So, the finance integration team had a charter of "Develop a plan for integrating the target company into the lead company's financial systems and procedures." In areas like sales, manufacturing, and R&D, the CEO had no established bias and wanted to use the transition period to identify and lock in best practices. Thus, the charter for these transition teams became "Review current practices in both partner organizations and propose best

practices from either current practices or new practices from outside either partner."

- *Clarify and discuss decision-making criteria.* Simply stated, if the transition teams do not know what they are looking for, they are not going to find it. If the strategic synergies in a deal are not kept front and center during the combination phase, then the void will be filled by power politics. Rather than identify and lock in ways to achieve the potential synergies in a deal, teams will make decisions based on who yells the loudest or drops the highest-ranking name or by "horse trading." Another problem is when transition teams work well together and get energized about their proposed recommendations, but then get shot down by senior leadership with a message "that's not what we are looking for." Leadership needs to put its cards on the table before managers set off on the difficult work of proposing integration recommendations. At the high technology company, senior leadership articulated critical success factors (CSFs)—such as "penetrate the low end of the product offering"—that supported the strategic rationale for the deal. When transition teams were convened, team members received a list of CSFs in addition to cost savings targets.
- *Establish team leadership.* The knee-jerk reaction of most executives is to appoint function heads as leaders of transition teams. This is fine if the function head is more diplomatic than dominating—that is, able to give air time to acquired employees and to lead a group toward consensus and creative decision making—and has a propensity to keeping an eye on group process while dealing with high-stakes content. But, the success of the integration cannot rely on assumptions and trial-and-error learning about the competencies of senior executives. In the high tech company, I worked with internal HR professionals to draw up a profile of transition team leadership competencies and rank senior executives against it. We reviewed the assessments with the CEO, who made decisions regarding team leadership. In some cases, functions heads were selected to lead transition teams; in other cases, the CEO dipped down a notch to select someone else to lead the team. In these latter cases, the CEO held a one-on-one conversation with the function head to explain his decision and to make a no-nonsense request that the department head fully support the transition team process. Although not leaders, these function heads often were placed on teams. So, a delicate working relationship ensued between subordinate team leaders and function heads. To retain the integrity of the team process, I paid special attention to these teams and convened periodic meetings with the team leader and function head to discuss the dynamics.

- *Strengthen group dynamics.* Dysfunctional group dynamics have nothing to do with mergers per se, but everything to do with teams. Transition teams must develop positive working relationships in a short period of time. Members are challenged to contribute to relationship building and information sharing with new colleagues while still conducting their core business work. Anything that can plague a group's process—multiple discussions, unprepared members, hidden agendas, forced decisions—can afflict a merger or acquisition transition team. At the high technology company, we addressed the matter of group dynamics head on. First, I trained internal staff to be transition team facilitators. Next, I conducted a training session with team leaders to alert them to the demands of transition teams and raise their awareness of group dynamics. Finally, I designed and conducted a full-day transition team launch meeting in which all participants came together to prepare for their roles. The meeting began with the CEO reiterating the deal's rationale and strategic intent. He used this as an opportunity to once again review the CSFs and solicit questions about their intent. Then, I gave a brief presentation on "Success Factors in Mergers and Acquisitions" with particular attention to the role of transition teams. This gave team members an opportunity to ask critical questions regarding the transition process to an outsider (e.g., "Why not just appoint someone the head of the merged function and let them create their desired organization?" "What do we do when the team hits a road block?" "To what extent should we involve and communicate with people from our departments who are not team members?"). The morning portion of the meeting concluded with the company's senior HR executive delivering a presentation on "Transition Team Member Do's and Don'ts" and the facilitators conducting a humorous role play—"the transition team from hell"—which highlighted many of the process problems that plague most teams. Transition team members had lunch together and then met in their teams that afternoon. This first meeting had a structured agenda to ensure that members understood their roles and responsibilities, the context of and rationale for the merger, and their expected deliverables. Facilitators led teams through a twelve-item agenda that focused the teams on critical matters that would influence to their eventual success or failure (e.g., "What questions do you have regarding the team's charter?" "What ground rules should govern team behavior?" "How do team agendas get set?" "What is an excused absence?" and "How will the team make decisions?") The launch meeting concluded with all teams returning to the main meeting room for a final question and answer session with the CEO.

Taking the time to clarify charters, articulate decision-making criteria, establish strong leadership, and acknowledge and address group process dynamics paid huge dividends in this integration. Transition teams produced recommendations that were accepted by the senior steering committee and, in several instances, identified costs savings beyond initial projections.

Issue: Inadequate Attention to Human and Cultural Issues

When Abitibi-Consolidated, the world's largest newsprint manufacturer, was created by a merger of equals (and this was a true merger—the predecessor companies owned 50 percent of the new entity and both chief executive officers agreed to stay on board as co-CEOs), the two senior executives asked to meet with me to discuss options for managing the integration. The first question asked by one co-CEO was, "I don't understand all this concern about employee uncertainty and stress. My colleague here and I have been working very well together and we see great opportunities for the combined company and its people. What's all the fuss about?" My response: "The two of you are the only ones in the entire organization who know their job titles and responsibilities. Everyone else is wondering, at some level, 'what is going to happen to me?'"

Senior executives regularly deny or ignore the human and cultural issues when combining organizations. They issue dictums like "its business as usual" and "if people are worried about their jobs, maybe they should be." When announcing the merger of AOL and Time Warner, Steve Case and Gerald Levin literally had their arms around one another and said to the cameras, "there is no culture clash here." I appreciate that these two CEOs had known each other for several years and trusted one another, but to suggest that the techies from Virginia and the publishers from New York City would not experience culture clash in their combination is pure fantasy. When Time, Inc. and Warner Brothers merged, there was plenty of culture clash between New York magazine publishers and Hollywood movie producers, while AOL's acquisition of Netscape produced pitted "east coast technology" against "west coast technology." This critique is not a put down of these integrations; rather, it is a statement of fact that confronts all combinations. Ignoring or denying the realities of employee stress and culture clash only makes matters worse—employees feel that their concerns are not understood and have little confidence that the integration will be well managed. This is one of the reasons why so many talented people jump ship rather than wait to see how things play out in the integration.

The Merger Syndrome

Several years ago, Philip Mirvis and I identified symptoms of the "Merger Syndrome" as a primary cause of the disappointing outcomes of otherwise well-conceived mergers and acquisitions (Marks & Mirvis, 1997a, 1997b). The syndrome is triggered by the often unavoidably unsettled conditions in the earliest days and months following the announcement of a deal and encompasses stress reactions and development of a crisis management orientation in the companies involved. In one of our most striking discoveries, we found that the Merger Syndrome arises even when the partners have taken some care to devise a thoughtful integration designed to minimize upheaval and provide due consideration for its effects on people.

What creates the Merger Syndrome? For employees, it is a fusion of uncertainty and the likelihood of change, both favorable and unfavorable, that produces stress and, ultimately, affects perceptions and judgments, interpersonal relationships, and the dynamics of the combination itself. In organizations, the syndrome is manifested by increased centralization and lessened communication that leave people in the dark about the combination and fuel rumors and insecurities. This often produces "worst case" scenarios that distract employees from regular duties and cause them to be obsessed with the impact of the combination on themselves and their work areas. All of this hampers integration, reduces productivity, and contributes to the turnover of key people.

Fretting about the "me" issues in a combination is exacerbated by the clash of cultures. By their very nature, mergers and acquisitions produce a "we versus they" relationship, and there is a natural tendency for people to exaggerate the differences as opposed to similarities between the two companies. What is noted first are differences in the ways the companies do business—maybe their relative emphasis on manufacturing versus marketing, or their predominantly financial versus technical orientation. Then differences in how the companies are organized, say, their centralization versus decentralization or their differing styles of management and control, are discerned. Finally, people ascribe these differences to competing values and philosophies—with their company seen as superior and the other as backward, bureaucratic, or just plain bad.

Ironically, a fair amount of diversity in approaching work aids combinations by sparking productive debate and discussion of desired norms in the combined organization. When left unmanaged, however, the clash of cultures pulls sides apart rather than joins them together.

Consultation: Raise Awareness of the Merger Syndrome and How to Manage It

The Merger Syndrome is perfectly normal and to be expected in even the best planned and most carefully managed integrations. Consultants can help manage the Merger Syndrome by acknowledging that worries about self-survival and clashing cultures are common in all combinations. The point is not to try to eliminate the Merger Syndrome—that would be an impossible task—but to help people manage its sources and symptoms. This begins by raising awareness of the Merger Syndrome and its impact on combining organizations and their people and cultures. Soon after Pfizer announced its acquisition of Warner-Lambert the president of Pfizer's R&D function announced that he was using the integration as an opportunity to transform the structure and process through which the pharmaceutical giant discovers and develops new drugs. This sent shock waves among all involved, especially veteran Pfizer employees who assumed their practices would prevail in the combined organization. I worked closely with senior HR and OD professionals at Pfizer to raise awareness of the human and cultural realities of the transition. To begin, we held a series of workshops on "Managing the Merger Syndrome" to alert employees to the signs of the Merger Syndrome and guide them in understanding methods for minimizing the unintended impact of stress, uncertainty, and culture clash. In addition to practical tactics, the overriding message was to ask people to acknowledge their reaction to the integration but to control their emotions rather than have their emotions control them. The sessions also discussed the difficulty of merging previously independent complex organizations and urged employees to cut one another and their leadership some slack during this trying time. Feedback showed that employees appreciated that they were being leveled with regarding the stresses and strains inherent in a combination and gained an understanding of methods for managing their personal stress and building positive relations with new colleagues.

Another intervention used to raise awareness of human and cultural issues in the Pfizer/Warner-Lambert integration was the collection of data to confront senior leadership on the integration process and progress. Various methods were used to conduct employee research: I conducted one-on-one interviews with key executives and managers and internal professionals, and held focus group interviews with broader employee groups. Periodically, internal staff and I met with senior executives to feed back and discuss the findings and to make key enhancements in the integration process. Senior leadership in R&D made important mid-course corrections based on the findings and feedback, ranging from strengthening the merger communication process to enhancing their own style to better model teamwork at the top of the organization.

Consultation: Respect and Clarify the Partner Company Cultures

Buying another company sends an implicit message to those in the lead organization that their ways of doing things are superior to those of the target firm. "If they are so good," acquiring mangers posit, "then why didn't they buy us?" Add in the self-imposed sense of urgency to move quickly to consolidate gains, and you get a tendency by acquirers to dominate the action in the integration process. To the victors go the spoils, and buyers can do whatever they darn well please will their acquisitions. However, if buyers want to retain key people and realize hoped-for strategic value and financial returns then they had better consider the potential for culture clash in a combination. Consultants can help ameliorate or minimize immediate incidents—and contribute the longer-term necessity of building enduring positive relations between the parties—by educating executives about the causes and consequences of culture clash. These educational interventions can be piggybacked onto activities already cited, such as the Merger Syndrome awareness raising or precombination planning sessions.

The primary method for minimizing the unintended consequences of culture clash is establishing a basis of respect for the partner cultures. This is true even if the ultimate intention is to absorb a company and assimilate its culture. Managers who display a consideration for their partner's way of doing things, rather than denigrate it, are likely to gain a reciprocal sense of respect for their own culture. In cases where one side's culture is going to dominate, respectfulness aids in helping employees see what the lead company is all about and has to offer in the way of structure, processes, and business behavior. And, in cases where a new culture is being built—either through transformation or by selecting the best from both organizations—a tone of cross-cultural consideration helps employees open up to different ways of doing things rather than tightly hold on to their ways.

One intervention is for consultants to coach people from the lead company on how to show respect for the other side's culture. A simple way to do this is to ask acquired people how and why they do things. Most appreciate the chance to describe how they go about their work. Keep in mind that many of the people from the partner organization helped contribute to and shape its history. Their contribution needs to be honored. Informal and spontaneous opportunities to ask partners about their ways of doing things are both welcome and informative. An executive walking through a work area can simply stop and ask people to describe their work and what they like about their company. Naturally, tone is important here—the question should come off as an honest inquiry rather than a challenge or bit of spying.

While informal questioning and respectful "show-and-tells" help educate partners on observable behaviors, they cannot uncover the deeper-rooted values and basic philosophies that underlie those behaviors. To understand a culture, you need to appreciate the "why's" behind the

"what's" that you observe. Many misunderstandings and communication breakdowns result from managers lacking the means to decode, translate, and contextualize the overt messages and publicly available information about their partners. Unless key players from the combining organizations learn to read these deeper roots of the other side's culture, then mutual working relations will always be under threat.

One method to help combining people gain a deeper understanding about each organization's culture and ways of doing business is a hands-on "cultural clarification" activity. Its objectives are, first, to raise emerging cultural perceptions and stereotypes between the partners and, second, to initiate dialogue on the desired cultural end state for the combination. The activity is built around each partner group making three lists: (1) how we view our organization's culture, (2) how we view the other side's culture, and (3) how we think the other side views our culture. The rosters include business practices, interpersonal behaviors, and values. Importantly, participants are instructed to include characteristics that either have been experienced first hand or heard about second hand. The intention here is to unearth all the perceptions and stereotypes that are circulating regarding the partner.

The Postcombination Phase

After months of planning, the postcombination phase arrives with the requirement of implementing the decisions made for integrating organizations, structures, cultures, policies, practices, and people. In cases where combination planning has been more political than productive, the problems of the combination phase literally bleed over into the new organization. Yet even in cases where combination planning has succeeded in identifying ways to obtain strategic synergies and in designing an organization that is more than the sum of its parts, potential problems arise in the postcombination phase.

Senior executives often hurry to get on with things and rush through implementation. Time and talent have been directed away from core business requirements during the months of combination planning, and executives grow impatient wanting to turn their attention back fully to running their business operations or even to making their next acquisition. Recommendations generated in task forces may identify sound approaches to extracting gains from the integrated organizations, but inattention and sloppiness in implementation regularly undercut any hopes of realizing their potential.

Meanwhile, people experience a renewed surge of stress during the postcombination phase. Up to this point, many have been worried about their

job security. Now they have to contend with new systems, coworkers, leaders, and ways of doing things. This stage can be an invigorating and creative period; more often than not, however, it is a confusing and chaotic time that further adds to employee stress and organizational ineffectiveness.

Issue: Functional "Tunnel Vision" and Lack of Cross-unit Cooperation

A whole slew of coordinative issues arise during implementation. Sometimes, coordination problems emerge within units, like when the sales staff in a high technology acquisition learned of their quotas for selling products and services but had no sales materials ready to assist them. Often, though, implementation problems occur across units. In a hospital merger, a much publicized new state-of-the-art maternity ward sat empty for months because the legal function had not secured all the required government permits to operate the unit.

Consultation: Enhance Cross-functional Relations

One of the ironies of effective integration management—and an example of why these events are so difficult to manage—is that when functional transition teams do well, they tend to develop functional "tunnel vision." Team members dive deeply into the issues and opportunities in their functional area, but overlook cross-functional dynamics. A few firms address this by cross-breeding functional transition teams—say by putting a manufacturing person on the HR transition team or a product development person on the marketing team. Even so, as executives focus on building their functions and teams, fissures between interdependent units commonly develop in the postcombination phase. The responsibility for developing effective cross-unit relationships often falls through the cracks until tension mounts or a crisis occurs. Being proactive about "horizontal" organization building helps to keep a newly combined company aligned and averts conflicts that require considerably more effort to address later on.

In a multinational pharmaceutical combination, I used an intergroup relations exercise to help headquarters staff build better relations with field business units. One meeting brought together headquarters staff directors with country managers from the field to address roadblocks to an effective working relationship. The goal was to clarify what each group needed from the other, identify any gaps, and agree to cross-unit working arrangements. The process involved breaking the two groups out into separate rooms and having them respond to two questions:

- What does our group need/want from the other group?
- What can the other group expect from us?

The units posted their needs and expectations on flip charts and reconvened in the main meeting room. Country managers presented their cross-

unit needs first. They compared their list of "what country managers need/want from the headquarters staff" with the headquarter staff's list of "what the country managers can expect from headquarters staff." Many similarities appeared across the two lists, but some key gaps jumped out. One concerned the field executives' expectation that headquarters staff consult them early on when developing policies and establish information reporting requirements. Staff responded that it preferred to formulate policies for the whole of the combined organization and then check them with the field. After hearing examples from country managers of instances where consultation might have improved what came across as ivory tower policies, the headquarters staff concurred and agreed to invite representatives from each of the three regions into their planning sessions. Jointly, the two groups determined specific areas in which the field input would be of benefit, so as to not burden either side with unwarranted meetings.

After working through what was needed from headquarters staff, the focus turned to "what headquarters staff needs from the country managers" and "what country managers say can be expected from them." Again, the two groups identified and mutually addressed gaps in expectations and needs. This meeting enhanced understanding of what each group needed from the other to accomplish its objectives. It also established in the still fledging organization a workable process for raising and addressing issues. Prior to the combination, staff-line relationships in both of the partners were chary, at best, and often counterproductive. The cross-unit dialogue here set a new tone and demonstrated how the combination could enhance organizational effectiveness.

Issue: Postcombination Attitudes and Behaviors Reinforced by Default Rather than by Design

Extremely frustrating to people in the postcombination organization is the sense that they now have targets, goals and expectations on which their job evaluations, pay increases, and promotional opportunities will be based, but they do not have all the tools, information, and other resources required to perform well. And, scarce time, if any, has been allotted to train people in new systems or procedures or to let them experiment with new approaches to getting work done. Compounding this concern is the desire to make a good impression on new bosses and coworkers. While learning by trial and error is very common and effective in getting people to adopt new methods, the notion of learning through mistakes is troubling to individuals wanting to get out of the blocks quickly and make good first impressions.

Seeking to understand "which way the wind is blowing" in the postcombination organization, acquired or merged employees look to the behaviors and attitudes that prevailed in the recent months of integration

planning. The cultural norms that emerge during the relatively unfrozen combination period get refrozen or reinforced in the postcombination phase. Usually, this occurs by default rather than design. Leadership does an inadequate job of articulating a desired new culture, so the norms employees see during the combination phases—practices like constricted communications—become solidified in employees' expectations of what life will be like in the postcombination organization. In an acquired manufacturing firm which enjoyed excellent employee/management relations as an independent company, employees felt abandoned by their leaders who concentrated on managing relations with their new owners during the combination phase. Morale plummeted, and a union drive ensued. Leadership turned its attention back to employees and successfully fought off the unionization effort. The battle required considerable resources, however, and the effort to rebuild leadership credibility, as measured in a biannual employee survey, took several years.

Even in cases where leadership does a good job of articulating the desired culture for the combined organization, their efforts frequently are undercut by reward, information, and other systems that continue to reinforce the ways of the precombination organizations. Executives at merging consumer products companies hoped to use the combination as an opportunity to break traditional hierarchical "silos" in both sides. Yet, no systems were established to speed information across business units—either through the formal information systems or informal opportunities for managers to meet and share ideas and insights across groups. People regressed back to their prior behaviors rather than establish connections across business units.

What is in it for people to contribute to a productive combination? The promised long-term benefits of the combination may seem like a long ways down the road for individuals contending with the confusion and uncertainty of the developing organization. In the meantime, employees keep their eyes open to direct and indirect cues as to what behaviors are being rewarded and which are discouraged in the emerging organization. Which people are getting the best assignments? To whom are the most important responsibilities being given? Who is being called into the executives' offices to provide input on key decisions? What is happening to people who are abiding by the espoused new culture and those who clearly are not?

Consultation: Coach Senior Leadership to Model Desired Behaviors and Attitudes

As the postcombination organization begins to jell, consultants have the opportunity to provide feedback to senior executives regarding the cultural norms that are being reinforced and to establish a course of action for reinforcing the desired culture. The behaviors and attitudes of leaders that prevailed during the transition have a powerful impact on employees as implementation ensues. Through methods including surveys and individual and focus group interviews, consultants can conduct employee research to assess employee perceptions of the emerging organization and, in particular, the extent to which the desired culture is or is not prevailing. By focusing executive attention on this data, gaps between the culture that employees experience and the culture that leadership envisions can be dealt with early in the postcombination phase. These gaps can be addressed by direct executive action (e.g., at the acquired manufacturing firm, a consultant could have coached executives to increase face-to-face contact with an employee population that felt abandoned during the transition process) and by indirect actions (e.g., in the consumer products merger compromised by functional silos, senior executives could have been coached to model cross-unit cooperation by inviting staff from other departments to sit in on key meetings that had been restricted to within-department staff in the precombination organization.)

Consultation: Provide a One-time-only Bonus Opportunity Early in the Postcombination Phase

Rewards play an obviously important role in shaping the postcombination organization. Part of the work of refreezing desired norms is to design an incentive system suited to the desired postcombination organization. One rule of effective compensation programs is timeliness of rewards. Waiting for the annual performance evaluation cycle to kick in is too late—it will take at least two years for newly merged or newly acquired employees to determine what is or is not rewarded. Some short-term performance evaluation and reward help to monitor and shape behavior as the organization moves from the old to the new. Otherwise, the norms and practices that were rewarded in the precombination organization—and are still being measured and reinforced through the precombination performance evaluation system—will prevail and people will have little incentive to contribute to transition activities or adopt new behaviors. Consultants can advise on special short-term reviews and rewards. In a merged professional services company, one-time-only three- and six-month performance reviews were conducted. A scheme was developed in which payouts from these reviews were based on a formula integrating the extent to which individu-

als followed key operating principles as well as made progress on their regular performance targets.

Early in the life of the combined organization, as people are sorting out their roles and adjusting to their resources, is *not* the time for stretch targets or high-stakes rewards. Instead, targets should be attainable and payouts in these one-time-only bonus opportunities should be more symbolic than substantive—show people that they can "win" in the combined organization and provide timely feedback on the extent to which they are abiding by the desired postcombination culture.

CONCLUSION

The consulting interventions presented here are but a fraction of the tools available to facilitate successful mergers and acquisitions. Every combination is different, so each one requires a unique set of activities to minimize the downside of unintended consequences like employee distraction and culture clash and to maximize the upside of launching productive transition teams and locking in enhancements to the ways things get done in the postcombination organization. The consulting activities presented here are intended to illustrate that managing a merger or acquisition is not rocket science. It requires simple principles of good management—building understanding of and support for the integration rationale and critical success factors, raising awareness of potential pitfalls, confronting executives with valid data, leveraging tools like reward systems, clarifying and respecting cultural differences rather than denying their presence, and continually involving and communicating with people. Yet, three-quarters of these events fail. So, the delicacy comes in the execution.

Even when guided by a sound strategy and a carefully designed implementation, mergers and acquisitions are incredibly difficult events to manage. The vast scope of change, the huge number of decisions to be made, and the myriad of human reactions to change and transition entangle the combination process and encumber the realization of strategic synergies. Consultants who consider the human and cultural realities of integration can add tremendous value by directing the combination on a successful course toward achieving financial and strategic objectives and by helping the combined entity become more than the sum of its parts.

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CHAPTER 2

TEACHING TO THE ISSUE

Human Resource Intervention in Mergers and Acquisitions

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Most organizational consultants involved in the merger and acquisition (M&A) process readily agree that the human dynamics associated with interfirm consolidation play a crucial role in postcombination success. In fact, many of the researchers who initially documented the myriad dysfunctional effects that M&As can have on organizational members (e.g., Buono & Bowditch, 1989; Buono, Bowditch & Lewis, 1985; Jemison & Sitkin, 1986; Marks & Mirvis, 1985; Schweiger, Ivancevich & Power, 1987) have increasingly turned their attention to the development of specific interventions to facilitate the management of these interorganizational consolidations. Increased attention is being given to a host of operational questions and integration-related issues, such as whether key executives in acquired firms should be retained (Light, 2001; Siehl, Smith, & Omura, 1990), how to deal with the anxieties and uncertainties associated with being a merger "survivor" (Marks & Mirvis, 1992), the effectiveness of realistic merger previews (Schweiger & DeNisi, 1991), and ways to work directly with middle management even if support from the acquiring firm is not forthcoming (Buono & Nurick, 1992).

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There are, of course, a variety of methods that can be used to reduce much of the tension, strain, and discontent associated with the human side of interfirm combinations. Distinctions are often made between (1) preliminary interventions that focus on the immediate feelings and concerns of employees, (2) primary interventions that attempt to improve the flow of valid information between M&A partners, and (3) secondary interventions that assess and attempt to correct maladaptive behaviors among organizational members (see Marks, 1997; Marks & Cutcliffe, 1988). As management consultants become involved in facilitating the M&A process, however, they often find that there are a number of dilemmas and paradoxes inherent in underlying processes and interactions that readily complicate intervention efforts (Buono, Weiss, & Bowditch, 1989).

PREMERGER WORRIES AND POSTMERGER CONCERNS

Research has indicated that the mere hint of an impending merger or acquisition can precipitate a range of anxieties and tensions among organizational members (cf. Buono, 1997; Buono & Bowditch, 1989; Feldman & Spratt, 1999; Haspeslagh & Jemison, 1991; Legare, 1998; Marks & Mirvis, 1998). As the merger or acquisition becomes a reality, these apprehensions continue to fester and, unless effectively confronted by the organizations in question, can precipitate a number of adverse reactions among organizational members. Yet, while prescriptions suggest that change agents and human resource (HR) professionals should be involved as early as possible in the M&A process to facilitate employee adjustment (e.g., Buono & Bowditch, 1989; Marks & Cutcliffe, 1988), research continually indicates the relatively small role that HR and employee-oriented interventions play in early M&A stages (e.g., Cody, 1990; Schmidt, 2001; Schweiger & Ivancevich, 1985).

During the preconsolidation period, organizational activities are typically dominated by corporate lawyers and financial experts who focus on antitrust concerns, pricing strategies, and share offerings. The detailed and complicated nature of such analyses leads to a high level of segmentation of M&A-related efforts, with a significant degree of attention focused on relatively narrow, technical issues (Jemison & Sitkin, 1989). During this period, however, the reaction of most organizational members is centered on their own self-interest. Concerns, in essence, focus on personal survival and job and career ramifications, "me" issues as they are sometimes referred. Yet, despite purported emphases on achieving M&A-related synergies through the thoughtful assimilation of the two organizations, the reality is that the human dimension of such combinations and the possible traumatic effects that M&As could have on the organizations in question

are still not accorded the same top management priority as their legal and financial counterparts. Such lack of attention only serves to fuel the initial anxieties and concerns of organizational members.

Especially in the case of a merger of "equals," the two companies' management groups tend to fight for control and key decisions are often framed in "win-lose" terms, with significant friction and politicking as organizational members jockey for key positions and influence, literally keeping a mental tally of "who won what." Employee preoccupation with the combination slowly but steadily shifts from worries associated with whether they will have a place in the new organization to what that future with the new organization will be like. These latter concerns tend to be much more operational in nature, related to the scope and scale of new tasks and responsibilities, and the set of interactions and relationships emerging on the job. This arena is where joint operational task forces and integration teams can have their greatest impact. Yet, these teams are often formed without sufficient intervention to uncover and draw out psychological and cultural concerns that have the potential to act as impediments to the change process.

Even when premerger planning teams are put into place, experience indicates that they are disbanded far too early in the combination process. As Marks and Mirvis (1992) argue, by the time a merger formally takes place top-level executives have already worked extensively on organizational realignment issues and are ready to move on to the next set of strategic concerns. Middle managers and supervisors, however, who have not had anywhere near this level of involvement in the consolidation process, typically focus on very different sets of concerns. As these latter individuals struggle with their own personal reactions to the combination and the operational details involved in making the merged entity work on a day-to-day basis, they often view upper-management plans with skepticism and resistance. The resultant conflicting expectations—upper management emphasizing performance and middle management emphasizing adaptation—contributes to the organizational turmoil that inevitably emerges.

The human dimension of mergers and acquisitions, while clearly important and ethically relevant in all combinations, takes on more strategic significance in some types of combinations than in others. The nature of a specific merger or acquisition dictates the level of integration necessary (financial, strategic, operational), the speed through which the integration should be achieved, the ways in which the integration should be planned and implemented, and so forth. In some mergers, holding on to key people, especially technical talent, is one of the keys to success. In another, the people in the target firm could very well be less important to the long-term success of the combined entity than the ability to mesh operating systems or integrate the supply chain (see, e.g., Bower, 2001). Given the increased

reliance on intellectual capital and the desire to capture the "softer" synergies associated with enhancing revenues and process improvements (cf. Coff, 2002; Eccles, Lanes, & Wilson, 1999), however, the human side of mergers and acquisitions is rapidly becoming a significant factor in post-combination success.

TEACHING TO THE ISSUE

If we are to develop a strategic approach for dealing with the human dynamics associated with mergers and acquisitions, it is important to develop intervention strategies that incorporate work with organizational members on pre-M&A anxieties as well as post-M&A concerns. Since the perceptions, feelings, and reactions of organizational members are an inherent part of the merger experience, it is our premise that the extent to which organizational members are provided with the insights and skills that enable them to deal with these realities has a direct bearing on their ability to manage and cope with the uncertainties and anxieties associated with the merger process.

We refer to this approach as *teaching to the issue*, that is, teaching to the emotions surrounding the merger rather than the context of the merger per se. The key idea is to develop an initial awareness of and the eventual ability to moderate the personal, interpersonal, group, and intergroup problems that typically emerge before, during, and after a merger. This process, which is guided by three fundamental premises, should begin once the possibility of a merger is envisioned. First, an important part of any consulting intervention in a large-scale change effort is to facilitate organizational learning by helping organizations and their members acquire the capacity to continually change (see, e.g., Cummings, Mohrman & Mitroff, 1989; Kerber, 2001). Second, although we may have generated substantial information about general M&A dynamics (which might be thought of as partial knowledge), specific knowledge about any particular large-scale change must be generated by the participants involved in that change (see Mohrman & Mohrman, 1989). Third, rather than initially focusing on a particular change in general it is more effective to prepare people to deal with the issues underlying that type of change (partial knowledge) and then work with them to facilitate application to their precise situation (specific knowledge).

Just as the Japanese have a tradition of preparing the roots of a tree for replanting well in advance of actually moving it, the idea of *teaching to the issue* is based on (1) anticipating many of the issues that will likely arise once the merger or acquisition formally takes place and (2) preparing organizational members to deal with them. In this sense, the process can

be thought of as *anticipatory* merger socialization. As previous research on organizational socialization has indicated (e.g., Feldman, 1981), as a preparatory phase the anticipation of organizational values, expectations, goals and responsibilities can facilitate the actual encounter between entrants and the organization(s) they are joining. Similarly, since many of the issues embedded in a merger or acquisition are highly personal and interpersonal in nature, interpersonal skills workshops and team building sessions can prepare organizational members to deal with the types of problems they are likely to face well in advance of the transition. The key is to *build toward the merger* rather than use the merger itself as a point of departure. If individuals are exposed to the concepts and applications of interpersonal dynamics in light of impending change, it is possible to mitigate some of the natural resistance and defensiveness inherent in this type of change.

Table 2.1. Teaching to the Issue

Emphasis	*Foci*
Pre-Merger	• Examining interpersonal and inter-group issues in the context of impending change
	• Analyzing interpersonal and inter-group issues in anticipation of the merger in question
	• Exploring feelings about the merger/change (known and unknown)
Post-Merger	• Exploring perceived gains and losses related to the merger
	• Uncovering job-related concerns and issues
	• Assessing feelings about the merger/change (known and unknown)
	• Identifying specific steps toward integreation: Short-term projects and ways to support each other facilitate task accomplishment

Within the context of this approach (see Table 2.1), initial interventions are structured to introduce the basic components of human interaction and communication, including organizational culture and context, verbal and nonverbal communication, and the basis of interpersonal and intergroup misunderstandings. Since the design of the workshops emerges from the understanding that a merger/change is in the offing, application of these concepts explicitly takes this into account. Each successive session moves closer to the actual merger as the focus of discussion, emphasizing such topics as the self in relation to the organization and to the "other," and such skills as active listening and assertiveness in an interorganizational context. By the time the merger (or other transition) formally takes place, the intent is to have individuals build up sufficient trust and ability to pave the way for a more informed and open discussion of these issues during the postmerger integration period.

THE CREATION OF REGIONAL MEDICAL CENTER

As an illustration of this approach, the chapter focuses on how this model guided an intervention during the merger of two hospitals located in the suburbs of a large Northeastern city. Suburban Hospital and Town Hospital, located approximately five miles apart in adjacent communities, were to become the two campuses of a newly created 500-bed facility referred to as Regional Medical Center. Prior to the consolidation, Suburban and Town Hospitals were fierce competitors for personnel, physicians, patients/customers, and managed care contracts. While both hospitals had sufficient assets to weather any short-term problems, it was clear that Town Hospital was in better financial shape than Suburban Hospital. During the year prior to the merger, for example, Suburban Hospital experienced over a 200 percent drop in financial reserves per patient discharged (the second highest decrease in the state). Moreover, the hospital's per-discharge reserves were among the lowest in the state. Town Hospital, in contrast, had a modest increase in its per-discharge reserves, up slightly over 4 percent during the same year.

In addition to the competition between the hospitals that created a perception of the other as the "enemy," the two hospitals had markedly different cultures. Suburban Hospital, a 300-bed facility, was considered a "teaching" community hospital because of its medical and surgical resident training programs. Town Hospital, a 200-bed facility with no major teaching affiliations, was known for its "country club" atmosphere where patients were perceived to receive more personalized and caring treatment than at Suburban Hospital. Moreover, Town Hospital was unionized while Suburban operated without a union, which further contributed to the cultural differences and tensions between the two organizations.

Although merger talks began in January, the general managers and employees of the two hospitals first learned of the possible consolidation six months later in June. Rumor had it that the only reason that the information was shared at that time was because it had been "leaked" by a discontented board member of Town Hospital to that facility's medical staff. As expected, employees and the medical staff from both facilities had mixed reactions to the news. Most people agreed that the rationale for the merger was sound: smaller hospitals were experiencing difficulty recruiting physicians; the cost of sophisticated medical equipment was becoming prohibitive for facilities with low volumes of procedures; state and federal health care legislative initiatives were creating incentives to eliminate excess capacity through consolidation of services; and, in general, an increasingly competitive managed care environment was making it difficult for smaller hospitals to survive. The hospital staffs and stakeholders in both communities, however, were apprehensive about the future of health care

in the region. Fears lingered about a potential decrease in the quality and availability of health care and the uncertainty raised by regulatory initiatives as well as fears of job loss and related concerns typical to mergers and acquisitions.

In response to these concerns, both Town and Suburban Hospitals convened separate support meetings for their middle-management staffs. These meetings largely consisted of presentations on merger plans, with a focus on the importance of personal adaptation during a merger, the manager's role in promoting merger success, the dynamics of transition, and the psychological dilemmas inherent in a postmerger environment. While the middle managers found the presentations enlightening, they expressed reservation about their overall utility and helpfulness. The merger lecture's didactic focus was too generic and the session's format provided insufficient opportunity for the participants to examine and explore their own feelings about the impending change. In effect, the sessions taught *about* a merger rather than teaching to the issues that underlie the merger process.

The Premerger Intervention

Due to the frustration that followed the initial merger presentations and in anticipation of negative employee reaction to the impending change and consolidation, three months prior to the formal merger one of the authors was brought in by Town Hospital to conduct a series of team-building workshops with nursing department administrators, managers, and supervisors. The sessions focused on interpersonal awareness (e.g., appreciating and understanding a different point of view) and related skills (e.g., listening, assertiveness). The workshop, which took place in three interrelated sessions spread out over a 3-week period, was framed in accordance with the forthcoming merger, and the consultant acted as a facilitator, in essence "teaching to" the issues that were likely to arise. The first two sessions were a combination of interactive lecture and discussion, focused on typical human reactions to the change process and related M&A dynamics. Drawing on these discussion and exchanges, the third and final session devoted significant time for participants to reflect on and speak specifically about the impending merger.

Based on the facilitative and interactive nature of the first two sessions, the nurse managers and administrators appeared to have developed a high level of trust and openness, paving the way for the more open-ended discussion. Moreover, since a majority of the members of this particular nursing leadership team had a long history of working together, they had nurtured a sense of comfort speaking truthfully about their feelings and

concerns. While this tendency created difficult group dynamics in certain instances, the group's norms were very helpful in this particular situation. Ongoing support and sponsorship by a respected, senior-level administrator—the vice president of patient care services—further helped people to buy in to the intervention.

After a break, roughly midway through the third session, the participants wanted to change locations from a relatively large auditorium setting, which was perceived as "too cold," to a smaller conference room where everyone could sit around a large conference table. The consultant observed that perhaps the group chose the more intimate setting to facilitate the expression of feelings about the merger that had only been implied up to this point. At that point, the consultant switched to a more process consulting/interpretive method to accommodate the more introspective mood of the group. Four major themes emerged from the ensuing discussion.

Curiosity About and Fear of the Unknown

As might be expected, the impending merger engendered a range of feelings about what the future would bring. Individuals expressed feelings of being "in limbo," of futility in performing their tasks, and of being "suspended" with regard to life and career positions. Some managers expressed anxiety about the possibility of looking for a job in a depressed economy, noting that the anxiety permeated the entire organization.

Feelings of Ambivalence

Along with concerns about an uncertain future, the nurse managers expressed ambivalent feelings of sadness and hope concerning the anticipated merger. In response to their sense of loss, several people admitted that they were in a state of denial. This orientation was reflected by such statements as "things aren't final yet" and "maybe we won't merge after all." Others used a family-oriented metaphor of being "adult children in their parents' home," mourning the fact that they could not go back to a more comfortable and secure organizational life. There was a desire to hang on to known rituals and symbols, such as the hospital mascot and its annual awards ceremony. At the same time, the participants expressed optimistic feelings, putting faith in the system with a willingness to let the "chips fall where they may."

Working and Living with the "Other"

Since the merger would bring together two divergent cultures, the managers expressed concerns about having a "face off" with the other organization. They feared that consolidation would precipitate an "us against them" situation. Some participants felt that they were expected to make friends

with the "enemy," especially since the merging hospitals had been major competitors. A family metaphor was raised again: "It's like two families who have hated each other for years are getting married." Concerns were also expressed about which jobs at which hospital would be considered more important and that the fear associated with the resulting competition, if not handled properly, could cause people to turn on each other.

Feeling Out of Control

Some of the nurse managers expressed a high degree of apprehension and anticipation. They were impatient and wanted to "get on with it." Others felt a floating sense of anxiety, especially about the idea that "a few were making decisions for the many." Still others expressed feelings of being "out of control," not being able to make their own decisions or do their work appropriately. There was a desire to "chunk down" the anxiety related to the merger by getting a grasp on what they could and could not control. They were also clear that the uncertainty would not end on January 1 when the merger would be official, but would continue well beyond that date.

Venting as a Prerequisite for Moving Forward

During this exchange, the consultant mainly listened and facilitated the discussion by asking probing questions, especially about the affective components related to these issues. Drawing on Vaill's (1989) metaphor of "permanent white water," the group focused on the inevitability of change and the concomitant uncertainty they were facing. A key goal of the session was to legitimize the feelings and anxieties that were being expressed, allowing people to vent their feelings and create a foundation for moving forward (see Marks, 1994). The meeting ended on a hopeful note. Participants said that the team-building orientation of the sessions had been helpful in learning about their colleagues' ideas and concerns and that there had been positive role modeling within the group. The group also expressed a desire to return to these issues after the merger had taken place.

Anecdotally, the intervention appeared to be very helpful to most of the managers because it gave them an opportunity to "vent" their feelings in what they perceived as a safe place. While a few individuals were more cynical about the workshops and the probable outcomes, the vice president of patient care services (the intervention's executive sponsor) noted that the majority of the managers—particularly those relatively new to their jobs—bonded with each other as a result of the intervention and seemed more energized to deal with the merger. The workshop series, in essence, created a foundation for a support system for the difficult postmerger times and challenges that would follow.

The Postmerger Intervention

Approximately six months after the formal merger, the vice president of nursing approached the authors to facilitate a two-day, off-site retreat for nurse-managers from both campuses of the newly combined Regional Medical Center. The purpose of the retreat was to put the past firmly behind them, refocus their energies on specific operational needs, establish directions for the next three years, and focus on how business would be conducted in the future. The emphasis of the consultants' work was to be "Coping with Change."

Based on the previous work with the Town Hospital nurse-managers and discussion with the vice president and her staff, a "here and now" discussion was planned to explore and air thoughts, perceptions and emotions stirred up by the merger. As suggested earlier, the rationale was three-fold:

1. The primary focus of the retreat and of the nurse-managers' work at both campuses was managing the logistical details of the merger and setting new directions for the hospital. There had been few, if any, structured opportunities for the nurse-managers, as a group, to discuss the emotional impact of the merger.
2. Because of their role as middle managers, these nurses had to cope with not only their own reactions to the merger, but also those of their subordinates and superiors. This dynamic made them especially vulnerable to being "filled up" with the emotional baggage associated with the merger from the system as a whole. Being a receptacle for the emotions of others is particularly stressful. This stress, however, can be effectively managed by recognizing the underlying emotions, and using that insight to prepare the individuals involved to "move forward."
3. The retreat included representatives with long-term allegiance to each campus of the new hospital system. Although the purpose of the session was not to facilitate an intergroup intervention per se, the consultants believed that it was important to provide opportunities for members of both organizations to hear about the impact of change on the other group. This interaction was intended to promote empathy and understanding between the groups, creating the potential to reduce "we-they" conflicts and lay the groundwork for a more cohesive combined group.

Because of the number of nurse-managers expected at the retreat (approximately 50), two facilitators were used to guide the discussion—exploring perceived gains and losses as a result of the merger and related concerns that were on peoples' minds. This focus reflected our under-

standing of the ambivalence that characterized the reactions of these individuals during the premerger period. While the merger clearly created exciting challenges and did open up new opportunities, it also precipitated painful departures from what went on before. The mixed feelings of sadness and hope and curiosity and fear expressed by the nurse-managers in the premerger intervention reflected this dynamic. We believed that it was important to provide a framework for discussion that would allow for the expression of a broad range of emotions and perceptions and help to legitimize uncomfortable and mixed feelings, while setting a foundation to examine key operational issues and concerns. The intervention was based on the belief that only by combining the personal and human dimension of the merger experience with operational and strategic goals could realistic planning initiatives be created.

Merger Themes and Integration Challenges

The discussion of gains and losses as a result of the merger during the postmerger workshop was intense and involving, with participants broaching increasingly difficult issues as the session progressed. Initially, participants explored the relatively "safe" issue of gains from the merger. Some of the gains were related to institutional issues such as the greater financial stability of the new medical center and the greater impact of "the combined voice" of a larger nursing staff. Most of the gains, however, were seen in more personal terms. The merger was viewed as promoting greater autonomy and responsibility for nurse-managers and providing more opportunities for learning new skills and systems.

The sense of excitement at these opportunities was, however, tinged with fear. The chance to develop new competencies and to exercise more autonomy also brought the possibility of failure. Many nurse-managers wondered if they would have the energy and skills necessary to deal with the challenges posed by the new organization and the rapidly changing health care environment.

This mixture of excitement and fear expressed during the postmerger session was quite similar to the feelings discussed in the premerger workshop. Even though the nurse-managers now had concrete experience with some of the realities of the merger—its costs and benefits—many specific aspects of the emerging system were still unsettled and unknown. The nurse-managers were part of a system in transition where it was hard to predict exactly what would come next, where they would fit in, and how they would meet the challenges to come. Many still felt as though they were suspended in a kind of limbo.

The recognition of their shared ambivalence about the opportunities presented by the merger and their anxiety about the future allowed the nurse-managers to express more openly the losses that they were experi-

encing. The salience of these losses, and the degree to which the nurse-managers were still mourning the old system, can be inferred from the time they spent on this part of the discussion. While the discussion of gains lasted approximately 15–20 minutes, the discussion of losses lasted well over an hour. As noted earlier, such venting is clearly important as it validates the experiences of the participants as they cope with loss and begin the adaptation to a new organizational order (see Marks, 1994). Thus, it is critically important to use such exchanges as a transition point, moving beyond mere discussion of these feelings, concerns, and frustrations to insights and action plans for moving forward.

Time, Relationships and Identity

From a consulting perspective, it is important to consider where people are coming from, allowing them to chose where they want to begin and maintaining a sense of flexibility in guiding the discussion. In this particular intervention, the first loss that emerged was relatively concrete and "safe," shared by many participants, and viewed as the downside of the gains in autonomy and responsibility mentioned earlier—the loss of *time*. The nurse-managers perceived time as an increasingly scarce commodity. Many nurse-managers felt that they no longer had enough time for themselves or their staffs. They talked of "abandoning" their support staffs as they juggled the time demands of their new responsibilities and the need to commute between the two campuses of the new organization. They also found that it was much more time consuming to manage the new, and as yet unfamiliar, system. Familiar procedures that once enabled them to get things done quickly no longer worked and had not yet been replaced with new methods.

While the time demands of the merged system were very real, it is also possible to see time as a symbol of a more complex and less concrete loss—the loss of important *patterns of relationships*. As a result of the merger, many nurse-managers were working in new roles with new combinations of peers and subordinates. Some former colleagues had left the system entirely or might be leaving in the near future. Once comfortable and predictable interactions with familiar people and systems had been replaced by new and untried relationships that took more time to nurture and to manage. The nurse-managers simultaneously grieved the loss of these familiar relationships, welcomed the opportunity to make new friends and learn from new peers, and felt burdened by the time it took to create these new relationships and modify the old ones.

Along with the loss of, or change in, important patterns of personal relationships, the nurse-managers also felt the loss of a *clear sense of identity* that came with the change in their relationship to the larger system. No longer were they members of the Town or Suburban "family." They were now

members of Regional Medical Center, a more formal and less "cozy" organization. This official membership in the new system, however, had not yet translated into an emotional sense of membership. Their uncomfortable reactions to the change in procedures, the change in physical setting, and even the change in the origin of their paychecks acted as cues to the nurse-managers that they still had strong allegiances to their former organizational "homes."

Conflicting Loyalties

Because of the nature of their roles in the new system, the nurse-managers were particularly vulnerable to the pull of "conflicting loyalties" to the new and the old system. On the one hand, they were middle managers charged with making the new integrated system work. Because of their commitment to providing quality health care, they believed that it was especially important to have the merger go as smoothly as possible. On the other hand, most of them had a long history with their original hospital and colleagues, and they often found it difficult to support and speak the "party line" of Regional Medical Center. An explicit commitment to making the new entity work was often viewed by their colleagues as a betrayal of the old system and a tacit alliance with "the enemy." Depending on the situation and group they were with, the nurse-managers felt as though they were being asked to wear at least two different "hats": one representing their former hospital and allegiances, and one representing the newly combined Regional Medical Center system. They knew that their former "hats" were slowly going out of style, but they found that their new "hats" did not yet fit properly.

Developing a sense of identity within the Regional Medical Center system also meant making connections with former members of the "other" hospital. Because of the historic rivalry between the two hospitals, the marked differences in the two cultures, and the physical distance between the two campuses, this process was not easy. The "we-they" mentality that existed among the nurse-managers, for instance, was apparent in the seating patterns during the discussion session. Participants noted that representatives of Town Hospital sat largely on one side of the room while members of Suburban Hospital sat primarily on the other. In the words of one nurse-manager, "People cluster naturally where they feel most comfortable, and stress makes this more pronounced" (implying that the group was under a great deal of stress at work). The lack of a shared identity seemed particularly pronounced among members of Town Hospital, the smaller though more financially stable of the two systems. They were much more likely to feel that the merger meant that they were being asked to do things the "Suburban way" compared to their counterparts' sense that they were being asked to do things the "Town way."

The group as a whole seemed frustrated by and uncomfortable with the distance that still existed between the groups. At the same time that the nurse-managers grieved the loss of their former identity, they seemed to wish for the day when they would actually feel part of Regional Medical Center. While they were able to freely talk about the allegiance they felt to their own group, talking directly about the enmity and distrust they felt toward the other group was far less comfortable. Such feelings were perceived as getting in the way of making the new system work. While the nurse-managers' shared commitment to the goal of providing the best possible medical care worked to bring the groups together, this same commitment also made it difficult to recognize, surface and explore any divisive feelings.

Most of the discussion of "we-they" dynamics centered around frustration with the "selfish" behavior of the physicians. The physicians were perceived as acting-out against the Regional Medical Center administration in ways that jeopardized the success of the merger and the ability of the nurse-managers to deliver quality health care. This concern is reflected in tensions between the professional model that is dominant in hospital settings which places primary responsibility on the individual medical professional (McLaughlin & Kaluzny, 1990) as opposed to the team-building and group development orientation that is recommended in M&A interventions. In some ways, this discussion allowed the nurse-managers to pull together against a common enemy, the physicians. In doing so, they were creating a norm among themselves that ethnocentric behavior was not appropriate—even if ethnocentric feelings were characteristic of the different groups in the hospital.

Feeling Out of Control

Underlying the entire discussion of both gains and losses was the theme of feeling out of control and the wish for stability in the midst of chaos. New roles, new relationships, conflicting loyalties, a still unsettled system—all left the nurse-managers wishing for guidelines that could serve as the "rites and holy actions" for coping with the merger. They fantasized that there was a correct way to respond to all the change around them and the feelings stirred up by the merger. They also sought assurances from the consultants that they were doing a good job, that what they were struggling with was a common phenomenon of the merger experience. One nurse-manager revisited the family metaphor used in the premerger seminar, suggesting that their experiences were comparable to those of a married couple with children from former marriages struggling to create a blended family.

The role of the consultants throughout the discussion was first to create a safe setting where the nurse-managers could explore the full range of

reactions to the merger. In addition, our role was to help put these reactions into perspective and to create a foundation for the combined group to move forward with its integration plans. One fear of the nurse-managers was that their reactions were inappropriate and unacceptable. Because most of them had never experienced a merger or massive organizational restructuring before, they had no way of gauging the normalcy of their reactions. The fact that the nurse-managers from both settings shared many of the same feelings seemed to come as a relief and build a sense of cohesiveness. As part of the ensuing discussion, the previous metaphor of "permanent whitewater" (Vaill, 1989) was revisited and the concept of being "lost in familiar places" (Shapiro & Carr, 1991) was introduced to help frame the nurse-managers' feelings. These metaphors speak to the ongoing instability brought about both by the merger and the changing health care environment as well as to the discomfort caused by managing new roles in once familiar but changing settings.

The final segment of the retreat focused on specific operational changes that needed to take place as the two hospitals integrated their operations. Building on the discussions that had previously taken place, emphasis was placed on ways in which they could support each other through the process, including such things as guarding against interhospital ethnocentrism, sharing feelings, supporting integration initiatives, and recognizing and rewarding accomplishments.

MOVING FORWARD: CREATING A FOUNDATION FOR MERGING HUMAN RESOURCES

Given the hypercompetitive nature of the health care industry, it appears that we will continue to witness a steadily increasing number of hospital consolidations. While mergers and acquisitions, in general, create challenge, this is particularly true in the health care environment where the goal of providing quality patient care raises the real and perceived stakes attached to effectively managing a merger. Combined with ongoing tensions in the industry due to cost-containment pressures and attempts by hospital management to gain more control over clinical professionals and processes, hospital mergers and consolidations present significant human resource challenges (see Buono & Lombardi, 1996; Kalzuny, Zuckerman & Rabiner, 1998).

While there are obvious difficulties in generalizing from a single case study, anecdotal evidence of the effectiveness of this approach is promising. Ongoing discussion with the nurse-manager staff, for example, indicates that the premerger intervention helped to validate and legitimize their concerns and to make the merger itself seem less overwhelming. The

people who stayed in their roles within the merged organization also appeared to draw on the initial intervention as a way of creating common ground across the two hospitals. The postmerger intervention continued the process of validation for *both* sets of nurse-managers, bringing the two groups together in a common forum, allowing them to recognize their shared hopes and fears and begin the process of integration. As several of these individuals noted, it was enlightening for them to hear from the "opposite camps" about similar issues and the concerns—fears, anxieties, hopes, and expectations—that they had. The interaction and sharing of feelings and emotions between the two groups was a unifying experience, one that created a foundation for the two groups to work together. Once this basis was developed, the combined group was more ready—and, in many instances, more eager—to pursue specific tasks related to the integration of the two hospitals.

In mergers where members of the two organizations exhibit high levels of stress and defensiveness, such "small wins"—specific instances of cooperation and successful integration—can provide a stronger foundation for teamwork and successful union (see Buono & Nurick, 1992; Weick, 1984). The basic goal of merger management is to move through different stages of change—from premerger planning to actual consolidation to postmerger integration—while managing ambiguities in organizational strategy and structure, cultural values and expectations, behavioral norms, and organizational roles and positions (see Buono & Bowditch, 1989). It is critical to prepare organizational members for such ongoing, cascading change. While our experience suggests that the type of two-phase, premerger/postmerger intervention used in the hospital merger has promise, continued research is needed to assess, much more systematically, the specific types of interventions that can facilitate the human dimension of the merger process.

Far too many M&A-related workshops and training sessions are heavily didactic in nature, focusing on generic issues that, while enlightening, fail to provide a sufficient basis for introspection and understanding about the impending change that the participants are experiencing. General training around the dynamics encompassing the M&A process can be useful, especially for those organizational members who have not directly experienced a merger or acquisition on a personal level. However, a key dimension of these workshops, which is often minimized in their planning and implementation, is the need for explicit assessment and probing of the specific situation that the participants are going through, providing them with an opportunity to fully air their concerns. Once such venting is accomplished, the organization can then build on these emotions, facilitating a shift in focus toward specific priority initiatives that reflect short-term, immediate results and longer-term plans and strategies. At this point, as a way of building support and momen-

tum for postmerger integration, it is useful for the participants to identify specific projects that could produce desired results in the near term, for instance within the next 100 days. Focusing on these projects, cultural and psychological impediments can be identified, along with specific strategies for dealing with them. Successfully accomplishing these tasks not only enhances operations and the integration process but also begins to contribute to a new mindset as to how people view the combination.

As a way of facilitating such development, we have found that an underlying key is to "teach to the issues" underlying the merger (change) as a way of helping organizational members to enhance their ability to handle merger- and change-related processes and dynamics. Merging human resources from two previously autonomous organizations requires a foundation of trust, a foundation that can only be built through an exploration of the emotions and feelings that people are experiencing. Only then will organizational members be ready to refocus their attention and energy on the operational and integration challenges that face them.

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CHAPTER 3

FORGING A POSTMERGER IDENTITY

Tough Work in the Executive Suite

James W. Fairfield-Sonn

We know there are critical transition points in the development of an organization when identity-related issues must be addressed by the senior management team (SMT)—on behalf of the entire organization—or the performance of the firm will suffer (Collins, 2001). While some of these transitions are internally generated as when a firm decides to enter or exit major markets, others are the result of external forces such as deregulation (Kimberly & Quinn, 1984). Regardless of the source of the transition event, however, this is a time when the firm's leadership will in large measure determine how well the challenge is met.

The merger of organizations roughly similar in size is a classic example of a critical organizational transition where identity-related issues become central to the long-term viability of the combined firm. Moreover, in the wake of this event, the ability and willingness of the leadership to adequately address the pervasive cultural issues that typically exist will in large measure determine the degree to which future performance expectations are met (Buono & Bowditch, 1989; Galpin & Herndon, 2000; Weber, 1996).

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Why is forging a postmerger identity so critical to the success of newly joined organizations? The answer stems from the fact that the effectiveness and efficiency of organizations are as much the result of agreeing on simple rules for *how* work should be done as on *what* should be done (Eisenhardt & Sull, 2001). For example, in a classic examination of the impact of culture on performance, Deal and Kennedy (1982) identified four distinctive ways that highly successful firms agreed to approach their work. These approaches ranged from having a tough-guy or macho culture, engaging in hard work and hard play, to a bet-your-company culture, and process-oriented cultures. What is important to note here is that none of these approaches were uniquely superior to the others. Rather, it was the relatively greater amount of agreement around how to do work within the firms that led to their competitive advantage. Accordingly, when firms merge a critical piece of business is to gain greater consensus across both organizations about how they will collectively do business in the future.

Why must the SMT take the lead in creating the postmerger identity? In general, one of the foremost and on-going responsibilities of the SMT is to clarify and reinforce the core values of the firm (Heifetz & Laurie, 1997; Schein, 1985). Recent examples of the failure of the SMT to fulfill this key function, as in the cases of ENRON and WorldCom, clearly illustrate this point. While this work is never easy, there are times when it is both necessary and vital to the ultimate success of the organization. Forging a postmerger identity certainly falls squarely in this category. Specifically, the SMT must not only take the lead in the change effort, but begin by first changing themselves. This internal transformation is necessary because they not only hold most of the power in the organization, but in large measure the organization's culture is a reflection of them and their internal dynamics (Hambrick & Mason, 1984; Kets de Vries & Miller, 1987).

The focus of this chapter is on describing the year-and-a-half long process one SMT went through in their drive to create a new unifying vision, set of values, and management systems (Fairfield-Sonn, 2001) for a newly created organization in the wake of a major merger. The discussion begins with an overview of the general cultural change model that guided the SMT through the effort. Attention then shifts to the series of consulting interventions that focused on increasing consensus and acceptance for a new way of running the business as part of an overall effort to enhance the effectiveness and efficiency of the combined organization.

THE SETTING

MegaHealth, a fictitious name, is a major division within one of the largest health maintenance organizations (HMO) in the United States. Located in

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the Eastern portion of the United States, this division nearly doubled in size after it merged with another HMO that was itself created through a major merger only a few years earlier. The union of these two organizations led to the creation of a division with over $1 billion in revenues and 11,000 employees at several locations throughout the United States. Three years after the merger, with roughly the same number of employees, the division's revenues were in excess of $3 billion and it had become the most profitable division within its parent company.

The New President

Shortly after the new organization was created, a national search led to the hiring of a new president who had substantial industry experience and was working for another major HMO. The new president also had a clear vision for this new organization. His goal was to transform this traditional insurance-oriented firm into a dynamic, rapidly growing organization that was capable of leveraging its core competency in technology-assisted, large-batch processing to not only dominant its traditional market, but also to enter new markets (see Drucker, 1994).

Based on his preliminary assessment of the strengths and weaknesses of the newly combined firm, he made two key decisions during his first year that influenced how the intervention unfolded. First, he concluded that the firm's operations were running well enough that he could "just let the engine run." Second, his top priority during the first year would be to make sure he had the "right" senior team in place (see Collins, 2001). His main concern was whether he had sufficient talent on board, with players in the right places, to meet the challenges of the future. Once he felt the proper team was in place, he moved forward with the intervention that is described in this chapter.

The Senior Management Team

As noted above, during the first year the new president was actively involved in shaping his SMT. This process included hiring, reassigning, and firing some members. For example, he brought in members from both legacy companies as well as from outside the firm, including one individual who joined the team on the eve of the first formal intervention meeting. After selecting individuals for key roles on the SMT, most retained these responsibilities during the intervention, although some were reassigned to other jobs. At the same time, he did not hesitate to terminate individuals as soon as he saw they would not fit on the team. These

decisions included his chief operating officer, who was let go a week before the start of the formal invention.

At the start of the invention, there were 14 members on the SMT. During the next year-and-a-half the SMT remained largely intact. However, there were some changes as one individual was promoted to work for the parent headquarters organization, one individual left to work for a competitor, one was demoted, and five other individuals were promoted onto the SMT or recruited from outside the firm.

Intervention Design Team

While the author, based on his prior experience in promoting large-scale cultural change, was asked to serve as the facilitator for the entire intervention, the design and execution of the five phases was decidedly the result of a team effort. Specifically, each formal meeting of the SMT was carefully preplanned and debriefed by a four-member team: (1) the president, who had a very clear idea about what outcomes he wanted to see from each session; (2) the vice president of human resources, who aided substantially in the design effort because of his sense of the on-going internal politics within the SMT; (3) the director of communications, who played a key role in the invention by being able to clearly articulate the purpose of each session for the members of the SMT and creatively share the results with a broad range of audiences; and (4) the author in his role as consultant to the team.

THE CHANGE MODEL

One of the key roles of leadership within every organization is to constantly anticipate and respond to shifts in the external environment by promoting appropriate levels of internal technical and cultural change (Drucker, 1994). It is equally important for leaders to recognize the difference between these two types of challenges and approach them in different ways (Heifetz & Laurie, 1997). Specifically, while technical change typically lends itself to a linear, time-bound approach (Gersick, 1989), cultural change is always an unfolding work in progress (Fairfield-Sonn, 2001). Moreover, while technical change can be very complex, cultural change is often more challenging because it requires that individuals change not only what they do, but also how they think and behave (Cameron & Quinn, 1999).

Promoting cultural change, especially significant cultural change, therefore, is inherently more difficult to achieve because it carries with it the

requirement to deal with a set of special, often ambiguous, demands. Foremost among these demands are that individuals look at their basic assumptions about why different types of work should be done, to openly discuss their true feelings, and actively reflect on the consequences of their beliefs as a prelude to experimenting with new ways of thinking and behaving. This type of work, which Argyris (1994) calls "double-loop" learning, is tough work indeed.

Fostering cultural change in the wake of a major merger, therefore, requires deeper conversations than ordinarily occur among members of the leadership team. Based on these conversations, a consensus needs to be developed about the shape and substance of future directions for the combined firm. This emerging consensus, in turn, needs to be communicated throughout the organization to stimulate additional conversations at all organizational levels for a new identity to be created.

Initiating significant cultural change is also different than embarking on a technical change because, in these situations, involvement in deciding on the new identity does not fall equally on all members of the firm. Rather, these efforts must begin with discussions at the highest levels first. This requirement stems from the fact that the SMT inevitably defines the core values of the firm (Schein, 1985). Thus, this is one of those times when the SMT must take the lead in working through these "sticky" transformational issues (Hambrick & Mason, 1984; Kochan & Useem, 1992). Moreover, their relative success in this effort will, in turn, largely determine how well the organization-at-large will be able to deal with the wide range of identity-related issues that can influence how work gets done on a day-to-day basis.

Given the complex nature of fostering cultural change in the wake of a merger, what beneficial roles can a consultant play in these efforts? There are three ways in which a consultant can be clearly helpful. First, a consultant can provide a high-level map of the path the SMT will need to follow as they guide the organization's transformation to a new identity. Second, a consultant can aid in organizing and coordinating the content and focus of each intervention in the transition effort. Third, a consultant can serve as a facilitator for the very sensitive and important conversations that need to take place within the SMT as they strive to create a richer understanding of how they are currently working together and how that will need to change moving forward.

Cultural Change Efforts

Achieving lasting cultural change, therefore, requires a multiphase, unfolding intervention. While five generic phases of one intervention plan

are described in this chapter, it is important to note that the total effort is not time bound, and there is no guarantee of "success" until the last phase has been truly institutionalized. The first phase is to unfreeze the SMT from thinking that they can continue to do business as usual. In the case of mergers this is relatively easy to do because the event itself creates significant uncertainty and turbulence in the organization. Moreover, the event is highly visible and everyone is concerned about what the final outcome will be. The second phase is to move to a new identity. This new identity must be articulated, examined, challenged, communicated, and ultimately accepted by the SMT and key players throughout the organization. The third phase is to begin celebrating the successes achieved in pursuing the next step in the evolution of the culture of the organization. The fourth phase is to lock in the gains and start to make the new values a way of doing business. The fifth phase is to seek ways to embed the new values in the human resource management systems (e.g., selection, training and development, rewards and recognition) of the organization.

Promoting large-scale cultural change then can be likened to the movement of a large wheel through organizational time and space. The movement of the wheel is a journey without end, so in this sense it is not time bound. Energy and focus, however, must be continuously and judiciously applied over time or the movement will stop. Moreover, as suggested by the metaphor, the most effective way to move a large wheel forward is not through one decisive intervention. Rather, it is easier to move the large wheel by applying directed pressure on smaller wheels within the larger wheel. These small wheels are focused serial, cultural interventions.

Intervention Design

The overall challenge for the SMT in this case study came to be described internally as finding a "third way." In seeking to find this new way of running the business, it was decided early on that the path would not be a direct reflection of the manner in which either of the legacy companies had been run in the past. Rather, the new way would be something unique that had never existed before. To achieve this goal and make the smaller interventions successful, a number of tools and techniques were used in combination by a four-person design team to progressively move the SMT to a new place through open and enlightened debate.

1. ***Premeeting diagnosis.*** Prior to each meeting of the SMT, the president, vice president of human resources, director of corporate communications and the author met to discuss where the organization was in its cultural development and to lay out the goals for the ses-

sion. During these planning sessions, the group also identified what data should be collected for use in the formal meeting and how this data could be presented in the most powerful and engaging way possible (e.g., meeting held at remote locations, outside presenters).

2. ***Information sharing.*** Based on the above discussions, relevant organizational information (e.g., personal leadership style profiles on each member of the SMT; the results of a 360-degree, multirater feedback on each member of the SMT) was collected and shared with the members of the SMT during each session.
3. ***Time for reflection.*** During each session, the SMT was also given ample opportunity to reflect on the information they received, to challenge the data, and make sense of the data as they prepared to make decisions.
4. ***Action planning.*** At the end of each session, an action plan was created with concrete steps to be taken on specific issues during the intervening months before the next meeting and individuals were given responsibility for assuring that the steps were completed. Part of this planning always entailed the determination of a way to communicate the group's progress to the whole organization.
5. ***Follow-up.*** At the beginning of each session, a report was made by the individuals responsible for the activities to insure that the organization had locked in the gains that were anticipated in the previous session.

THE INTERVENTION PROCESS

As noted earlier, the process of forging a new identity for the two merged organizations neither began with nor ended after the formal intervention facilitated by the author was completed. Rather, the search for a new identity started with the arrival of the new president and continues on today. Thus, the formal intervention described here should be viewed as just one part of a much larger leadership effort aimed at value clarification and value reinforcement, which can be thought of as an evolving but literally never-ending process (Schein, 1985). It is also important to recognize that the intervention was not viewed by the design team as being time bound. That is to say, the team did not start out to conduct a year-and-a-half long cultural change effort nor was a five-meeting effort envisioned as the way to complete the work. Instead, the president knew he had several interrelated challenges to address and the SMT would take as much time as necessary to meet them.

In essence there were five challenges that needed to be met. First, the president wanted to gain deeper insight into whether or not he had indeed assembled the "right" team to meet the ambitious business goals he was going to pursue. Second, he knew to meet these goals the organization would need to have a new vision and set of cultural values. Third, beyond just identifying the new vision and values, he would need to find a way to communicate them to his far-flung organization in a meaningful way. Fourth, he would need to find a way to determine if the SMT was starting to live the new vision and values. Finally, a means would need to be found to maintain the momentum generated by the new vision and values and lock in the gains that were being made.

Mountain View 1: Strategic Vision and Culture

From the outset, the overarching aim of the president was to take his SMT and then the entire organization to "a new place." Part of his plan was reflected in the decision to hold all team meetings away from "normal" work locations. The first meeting was held in a mountainside resort several hours away from the corporate headquarters. To get to this location, the team literally took a five-hour bus trip. During the two-day retreat, a number of key issues were addressed, including gaining a deeper understanding of who was on the bus, what work the leadership team would need to focus on, and what the new organization would look like.

Who Is on the Bus?

To help the SMT start developing a deeper understanding of who was on the newly constituted team, another independent, external consultant, was engaged to conduct a series of three-hour, confidential interviews with each member of the SMT to discover the kinds of conditions that served to motivate them to excel at work. The first day of the retreat was devoted to a review of the results of the interviews with the whole team, a process that was facilitated by the external consultant.

Work of the Leadership Team

At the start of the second day, the focus of the intervention shifted to a discussion of what the SMT would need to do for the organization as a whole. From the outset, the team saw its foremost challenge as the need to create an organizational environment where people would be able to do their best work. To achieve this end, they decided that three interdependent issues would need to be addressed. First, they would need to create a compelling vision for the future (Collins, 2001; Collins & Porras, 1994; Collins & Porras, 1996). Second, they had to clarify the organization's new

cultural values and how they would be operationalized (Fairfield-Sonn, 2001; Schein, 1985). Third, they had to develop the strategic management systems that would allow the organization to do better work (Porter, 1996).

The New Organization

With the SMT clear about its charge, the remainder of the first retreat was devoted to discussions about what the new organization should look like. To aid in this process, the author first shared with the group the data that he had gathered in private, confidential interviews with each member of the team. This data was organized around three themes. First, what did each member think the new vision of the organization should be? Second, how did members think their vision could be most easily attained? Third, what was their assessment of the current cultural needs of the organization based on qualitative feelings and quantitative data generated through the Kilmann-Saxton "Culture Gap" (1983) survey instrument.

The interview data clearly showed that on all three issues there was not any consensus within the group, in fact, a "rainbow" of views existed. For example, the visions for the future ranged from, "first, we must provide all the transaction support the parent company needs, then we can market our services externally" to "health care transactions will only represent 25 percent of the revenue stream." Similarly, opinions about how to most easily attain the vision ranged from, "leveraging our four core competencies (i.e., familiarity with health care; processing skills; strong relationships with Fortune 500 firms; technological competency)" to "become a nimble, growth-oriented company that can do things outside of the health care business." Likewise, when it came to identifying cultural gaps the members' opinions ranged from the view that nothing needed to change to everything including social relationships, task support, personal freedom, and task innovation needed to change.

Given the wide range of opinions within the SMT about the future look of the organization, it became clear that a consensus around these issues would be necessary for the organization to move forward with its ambitious growth agenda. Accordingly, the group began a collaborative process of generating possible visions and values that might capture what they hoped to become in the future.

By lunchtime of the second day, however, it became evident that while the range of options under consideration was substantial, agreement on any subset of ideas was unlikely. Sensing the frustration within the group, the author suggested that the group stop its formal deliberations, take a break and literally climb to the top of the mountain to obtain a fresh perspective. This intervention proved to be critical as the walk not only refreshed the participants, but on their return the SMT was able to begin

refining a short list of potential visions and values that they wanted to explore in the next meeting.

University Tower 1: Strategic Vision and Culture

To keep the momentum going within the group, the CEO decided that the second meeting needed to be held quickly. Accordingly, roughly one month later he called the SMT together for a one-day follow-up meeting to continue their work of identifying a compelling vision and set of common values for the new organization. For this session, he felt using a neutral setting—the corporate education building of a nearby university—would be most appropriate.

The New Vision

During the first session, the SMT had generated a number of possible vision statements. In reviewing them, it seemed that while they all pointed in the same general direction, the time horizon of the different visions was a distinguishing factor. Specifically, some members of the SMT were interested in developing a vision for how to get to the next year, others had a three- to five-year horizon, while yet others had a truly long-term view.

To aid the group in coming to a consensus about a lasting vision, the author began the session by reviewing the vision statements of a number of very successful firms that had all been in existence for a long time (see Collins & Porras, 1996). In particular, emphasis was placed on the fact that they were all simple, bold, and compelling. With this focus in mind, the group deliberated on possible vision statements for the remainder of the morning and ultimately agreed on the following vision statement, "We deliver peace of mind, First."

As a way of facilitating the consensus-building process, the author structured the meeting to be a combination of plenary discussions and small group breakout sessions. In this way the group was able both to understand the range of options under consideration and then meet privately to discuss more candidly their personal opinions about the relative appropriateness of various vision statements.

New Core Values

During the afternoon of this session, attention shifted to identifying a set of core values for the future. This work began with a review of the list of potential cultural values that had been generated in the first meeting. With this list in mind, the author next led the group through an examination of the positive relationship between holding a core set of values and firm longevity (see deGeus, 1997). Challenged by this idea, the group ultimately

decided that the heart of their values must focus on "our customers" and "our people." In addition, it was decided that surrounding these focal points would be five cultural values that should permeate the organization—honesty, listening, creativity, energy, and delivery.

To make this final selection, the SMT was guided by two simple decision-making rules provided by the author. First, any value that was selected must reflect a passionately held belief on the part of the SMT. Second, the SMT should only chose values that they were personally committed to actively living and supporting on a day-to-day basis.

Beginning Steps to Foster a Cultural Transformation

After the core values were identified, the remainder of the session was devoted to a candid group self-assessment. Specifically, using the Kilmann-Saxton categories of social relationships and task support, where the group had collectively identified that the greatest cultural gaps existed, they explored three interrelated questions. First, what should the group continue doing to support these values (e.g., continue development of friendships with coworkers; continue sharing facts honestly). Second, what would they would need to stop doing if they wanted to live these values (e.g., emphasizing differences among the legacy companies; pursuing hidden agendas). Third, what new behaviors would they need to exhibit moving forward (e.g., celebrate organization-wide successes; systematically share information about results, progress, and pressing issues). From this total list, the group went on to prioritize the most pressing actionable items and assign an individual(s) to be responsible for completing them prior to the next meeting.

Mountain View 2: Communication as a Core Competency

After reflecting on the results of the second session, the design team felt that the focus of the next meeting, which took place six months later, would need to be on improving the communication skills within the SMT. Specifically, the SMT needed to become more comfortable and skilled both at "talking to each other" and "talking to others." To achieve this end, it was decided that another two-day session would be held at the mountaintop resort where the group had had its first meeting. The focus of these discussions would center on the group working through the results of a 360-degree feedback survey, on starting to operationally define the meaning of the five core values, and learning to tell and celebrate the new firm's "stories" more effectively.

360-degree Survey Feedback

As a complement to the personal information received at the first session from the external consultant, it was felt that the SMT could also benefit by receiving performance feedback from their superiors, peers, and subordinates. Accordingly, the author collected feedback on each member of the SMT using the organization's standard 360-degree feedback instrument.

At the start of the session, each member of the SMT received a packet of information that showed both the SMT total scores and their own individual scores. Since the goal was to improve the communication skills of the overall SMT, the feedback was provided at the group level with the opportunity for each member of the team to contribute what they wanted from their personal data. Based on this discussion, a number of team action items (e.g., need to improve the current budgeting and strategic planning processes) were identified for the group to work on moving forward.

In addition to identifying some important tasks that needed to be worked on, this discussion also surfaced the fact that the SMT would need to focus on a critical process issue. Specifically, since one of the core values they wanted to promote was honesty, they would need to be more candid in sharing their real thoughts with each other. The problem they faced, however, was that they did not feel they could sufficiently trust each other to always openly share information with the whole group. From the author's perspective, the fact that they could make this sentiment public was a significant breakthrough for the group.

With the trust issue on the table, the author took the opportunity to explore with the group what they could do about it at this time. Ultimately, the group decided that given where they were in their development as a team, that honesty would need to be conditional and everyone should be aware of that fact. That is to say, everyone would need to recognize that any statements that were made would be a reflection of who was in the room and what issue was being addressed. Paradoxically, this statement led some members to comment that this was perhaps one of the most honest things they had ever heard stated in a SMT meeting and they viewed it as a positive step in the growth and development of the group.

Learning to Talk to Each Other More Effectively

Building on the insights gained from the conversation around how to promote more honesty within the SMT and the organization, the next activity focused on learning to talk to each other more effectively. Not surprisingly, the first point made in this discussion was that part of learning to talk more effectively is the need to always be as honest as you can be. Yet, talking is not a one-way street. Effective talking also requires that you listen carefully to what is being said and not said.

In evaluating how well they listened to each other, the SMT came to another important insight. Specifically, as individuals and as a group they were not very skilled at listening. Accordingly, they needed to explore ways to become better listeners. This insight led to the generation of a list of actions (e.g., meeting informally from time-to-time over lunch to discuss business and social issues of concern to others; creating some tasks groups to deal with cross-functional issues that required input from others to be resolved) that could be useful to the group as a whole in their efforts to begin living this new core value.

Learning to Talk to Others More Effectively

The second day of the retreat was devoted to learning how to talk to others more effectively. To begin this discussion, the SMT first spent time creating operational definitions of creativity, energy, and delivery, which are central elements in telling a "good" story. This discussion was followed by an exploration of the core elements of storytelling and ways to deliver a powerful story led by a university faculty member who has a national reputation as a master storyteller. The remainder of the day was spent developing stories from the brief history of the newly formed organization that would vividly illustrate what it means to live the newly adopted values—honesty, listening, creativity, energy, and delivery. These stories were collected and ultimately became the core of a larger set of company value stories aimed at celebrating the company's achievements in living the new values.

Grand Hotel 1: Continuing the Dialogue

Roughly eight months after the third session, the SMT reconvened to continue working on their postmerger integration issues. For this session, the design team decided that in light of the explosive growth the firm was experiencing, four issues needed attention during the next two-day retreat. First, the SMT could benefit from more 360-degree feedback, not only about their strengths and weaknesses relative to the organization's core competencies, but also how well they were living the new values. Second, the team needed to start to sort out its top strategic priorities from a very large list of possibilities. Third, more time needed to be spent in reviewing the emerging series of value-based company stories. Finally, the group needed to begin including more employees in the pursuit of key initiatives, in particular designing ways for high-potential employees to become more heavily involved in carrying out strategic initiatives.

Expanded 360-degree Feedback

During the third session, SMT members reported that they had benefited from the 360-degree feedback on their strengths and weaknesses around the company's core competencies. To help the SMT continue to grow as a team, however, the design team felt that it would be useful to generate some trend data to see if their action steps were yielding positive results. In addition, it was felt the SMT should also receive feedback for the first time on how well they were living the new values.

The data from the expanded 360-degree assessment on the core competencies showed that some progress was being made on several key competencies—ethics and integrity, customer focus, and strategic vision. However, there were four areas—communication, team leadership, individual leadership, and coaching and development—where more time and attention needed to be focused. As for living the new values, the SMT scored highest on the value of energy, but lowest on honesty and listening.

Given the above data, sets of action plans were created by the SMT to work on as a whole. To generate this list, the author led the group through a "root cause" analysis around the cluster of emerging strengths and concerns. Based on this analysis, it was felt that the data reflected the pressures the organization was experiencing due to its recent dramatic growth and the belief that the firm would continue to expand rapidly for the foreseeable future.

Setting Strategic Priorities

As noted above, in analyzing the results of the expanded 360-degree feedback, the SMT felt that a likely reason behind many of their low scores was that the organization was trying to move too boldly on too many fronts at the same time. In this sense, organizational members felt that members of the SMT were not being honest and they were not listening to their concerns. To address this issue, the group first reviewed all of the 15 major strategic initiatives that were currently underway. Next, they listed what needed to be done to complete each initiative. Then, from the total list, the SMT identified what were clearly the top three priorities based on what absolutely needed to be done in the near term to continue the growth of the organization. These initiatives included: building a "model" for how field offices could continue to expand the volume of work they processed by 50 percent on a yearly basis, while maintaining high customer satisfaction; creating a web-based information system for customers to use in interacting with the company; and to develop a plan to outsource several administrative functions.

Sharing More Value Stories

Over the intervening eight months, the director of communications had led a significant effort not only to refine the value stories shared at the third session, but also to expand the number of stories in the collection. Accordingly, at the start of the second day of the retreat, he was given an opportunity to discuss and review the current scope of the value story effort and to share several new, compelling stories that had been added as well as his larger communication plan for the stories.

In essence, the goal of this effort had evolved into the intent to publish a book of MegaHealth stories that vividly illustrated actions take by the company's employees to live each of the five core values of honesty, listening, creativity, energy, and delivery. As an example, one particularly compelling "listening" story had been captured around the commendable efforts of one employee who saved the life of a customer who was thinking about committing suicide. Specifically, when an insured customer called the company to ask if death benefits were covered under her health policy, the claim representative listened carefully to the question and knew something was very wrong. Accordingly, she wrote a note to a fellow employee to get help to the caller while she continued to talk to her until help had arrived.

Expanding Employee Involvement

This fourth session also provided the opportunity for the SMT to begin expanding direct involvement of others in shaping the vision, values, and systems to drive the organization forward. Specifically, during the remainder of this session significant time was spent reviewing the backgrounds of many individuals who were considered to be high-potential candidates for positions of greater responsibility in the future. Then, drawing on the three top-priority initiatives noted above, the team framed a number of action-learning projects (e.g., exploring the marketplace for outsourcing opportunities) for these individuals. In addition, the members of the SMT agreed they would serve as project sponsors, as appropriate, and provide the time and resources necessary for these teams to complete their projects.

After this work was done, all of the high-potential candidates were invited into the meeting to discuss their potential involvement in these projects with the SMT and to hear why they were so important to the success of the firm. The session ended with the identification of the SMT sponsors for each project and the individuals who would be assigned to each project.

Old Fields Hotel 1: Testing the Vision—Trying Out the Values

In what would be the final formal intervention, the design team sought to explore and address outstanding issues around the organization's vision, values, and management systems. To prepare for this task, which took place four months after the last session—30 months after the signing of the merger deal—the author conducted intensive focus groups with 53 top-level employees to gain a better understanding of their concerns about the way the SMT was living the new values and displaying their competencies. In addition, members of the SMT were asked to provide detailed reports on their efforts intended to enhance the strategic planning process, complete the action learning assignments, and improve field operations. Finally, an engaging visioning exercise was planned to conclude the meeting.

Focus Group Results

In the previous meeting, the SMT had a general feeling for why they had received relatively low evaluations around living the values of honesty and listening as well as the four competencies of communication, team leadership, individual leadership, and coaching and development. However, they wanted to know for sure. Accordingly, the first portion of the two-day retreat was devoted to working through the results of the expanded focus groups results on these issues. Based on this analysis, they were able to prepare more precise action items to address the concerns that were raised.

Systems Enhancements

The afternoon of the first day and the morning of the second day were devoted to in-depth discussions of how: (1) the strategic planning process could be improved for the next year; (2) the status of the action learning projects; and (3) how the new vision and values were being experienced in the conduct of field operations. Working with this information, additional tactical plans were refined. For example, it was decided that the strategic planning process needed to have more of a long-term focus and that a summary of the plans would be taken into the field by members of the SMT to share the plan, answer questions, and receive feedback on ways to implement the plan more effectively. Second, progress reports were made on what the action learning teams were discovering through their efforts. Focus was also placed on identifying additional ways to support them in their on-going initiatives (e.g., getting access to important and sensitive internal sources of information). Third, based on information gained from an extensive field operation organizational assessment, it was decided

that additional informal lines of communication needed to be established between key field leaders and the SMT.

Envisioning the Future

Roughly 18 months earlier, at the conclusion of his after dinner remarks to the newly assembled SMT, the president had asked a haunting rhetorical question. "What would Ernest Shackleton have done if he was faced with the challenges that we must now meet?" This reference to the famous South Pole explorer was not clearly understood by most members of the SMT at that time. However, during the intervening months a book by Perkins, Holtman, Kessler, and McCarthy (2000) entitled *Leading at the Edge* was published about this great adventurer. Since this book focused on understanding 10 leadership lessons to remember in times of adversity, it was fitting that it would provide the basis for a conversation about how these lessons could be applied to the work of the group as it moved forward.

After the SMT had sufficient time to reflect on the insights in this engaging book, the author concluded the day with a search for lessons learned by the SMT in their quest to more fully align the new organization's vision, values, and strategic management systems. Drawing on Shackleton's experiences and the challenges they faced as a team, the SMT decided it would be helpful to organize a series of day visits to field offices to reinforce the importance of customer service in times of adversity. They also committed to celebrating the success of the action learning teams in a more public fashion and to start being more honest with themselves and others about the full extent of the challenges the organization was facing as it prepared to continue its rapid expansion.

DISCUSSION AND SUMMARY

Mergers create a critical "time of transition" in the development of an organization. While a merger may officially start on a specific date, the deal is never really done until technical systems and operational plans are integrated, but just, if not more importantly, a new cultural identity has been established. The failure of many leadership teams to appreciate the amount of time and attention that must be devoted to this total integration effort combined with their skill in dealing with these issues goes a long way toward explaining why so many of these unions fail.

The intent of this chapter was to add to the body of knowledge around ways to successfully pursue a postmerger integration of similar-sized organizations in two ways. First, by presenting a general model for approaching significant identity-related change in the wake of a merger of equals—one of the most difficult forms of combination to achieve (Buono & Bowditch,

1989). Second, by providing a detailed case study of how one SMT successfully worked through a number of challenges in their quest to define a new vision, set of values, and management system that would be the basis for a new firm identity. The general change model outlined here is based on three interrelated principles. First, to be successful in moving forward, the two legacy companies would need to give up their defensive attempts to maintain old ways of doing business. Second, to change the organization, the SMT—its members and the team itself—needed to first change themselves. Third, unlike technical change that can often be time bound, the movement toward a new identity needs to unfold through a series of punctuated interventions. In this case, the interventions occurred over a period of one-and-one-half years.

In terms of the major challenges encountered by this SMT in developing a new identity, most are relatively common to merger integration efforts. First, an assessment had to be made as to whether or not the right SMT had been assembled to lead the organization in the future. Second, a new vision and set of cultural values had to be identified. Third, a way had to be found to communicate the new vision and values throughout the organization. Fourth, a method for evaluating how well the SMT was living the new vision and values had to be developed. Finally, means would need to be found to institutionalize the new vision and values.

While these issues might be common to the merger process, the way in which MegaHealth chose to pursue postmerger integration was distinctive in several ways and may have helped to explain its success. In the wake of a merger, it is tempting to quickly try to address the myriad task- and culture-related integration issues because they are so obviously pressing. An alternative approach seen here, might be to actually leave the operations alone for a while, especially if they are running reasonably well, and instead first focus on getting the "right" senior management team in place (see Collins, 2001). Once the right SMT is there, then it will be easier to work on the cultural issues, which, in turn, make dealing with the task-related issues easier (Birkinshaw, Bresman, & Kakanson, 2000).

Another distinctive feature of this change effort was the conscious decision to start working with the SMT first, and then cascade the effort through the rest of the organization. Since the SMT has the ultimate responsibility for defining and living the core values, it makes sense to start at this level. If SMTs are not impassioned about modeling the "new way" and skilled in doing so, then how can they expect members of the legacy companies to get excited about the change (Kouzes & Posner, 1995)?

The third distinctive aspect to this effort was the decision to unfold the effort through a series of related interventions. This approach was beneficial in a number of regards. It gave the SMT time to reflect on where they wanted the organization to go, providing them with an opportunity to

receive feedback on how well they were doing over time and what areas they needed to work on to keep the effort moving forward. In addition, it provided a way to celebrate successes along the way and institutionalize the involvement of an increasingly large number of employees in the process over time.

In summary, we know that mergers can be traumatic events in the lives of organizations and that too many fail for lack of sufficient leadership time, attention, and skill at working through critical issues. Clearly, we are in need of better models of change and methods for achieving lasting inter-organizational integration. Hopefully, this chapter has provided some guidance to facilitating postmerger integration efforts as well as stimulating others to build on and further clarify the ideas presented here.

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CHAPTER 4

WHAT "DUE DILIGENCE" *REALLY* MEANS

Intangible Capital and Organizational Reality

Judith A. Gebhardt

Corporations are increasingly vying for a competitive advantage, one that can translate into strong bottom-line performance and a high return on their investment (ROI). To accomplish this feat, many large-scale organizational changes are taking place, with merger and acquisition (M&A) seemingly the mode du jour. While most of these interorganizational strategies and recommendations are initially guided by the due diligence process, the dominant focus has been on historical financial performance and legal ramifications. Yet, Mercer Management Consulting found that 57 percent of merged firms "lagged behind their industries in terms of total returns to shareholders" three years following the transactions (*Economist*, 1997, p. 57). Similarly, PricewaterhouseCoopers partner Phillip Clements asserts that "up to 80 percent of all M&A transactions have destroyed or failed to create value" (Lajoux & Elson, 2002, p. xi). Study after study of merger and acquisition performance suggests that Mercer Management and Clements are on target with their assessments.

While there are many reasons for this high failure rate, it is important to underscore that, especially given the types of interorganizational combina-

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tions we are witnessing today, intangible capital plays a significant role in M&A outcomes (Lev, 2001a, 2001b). Yet, key intangible or intellectual capital variables—people, relationships, knowledge, and culture—rarely receive the same scrutiny as financial and legal concerns during the due diligence process, despite their significance in contributing to an organization's true value. More specifically, these factors are largely excluded from profit and loss statements (with the exception of the "goodwill" category), resulting in a gross distortion of the most meticulous and accurate accounting records.

DePamphilis' (2001, pp. 193–194) comprehensive analysis begins to link traditional due diligence accounting processes with more intangible components, stating "it seems logical to include team members ... with the required specialized expertise to address environmental, legal, and technical issues... which necessitates the use of consultants ... and the right advisors." A list of such team members for the "large public company," as generated by Donovan and Jaye (1999), includes management representatives, investment bankers, independent accountants, operations specialists (such as engineering or MIS personnel), inside and outside corporate counsel, and specialists in environmental, labor, tax, intellectual property, and real estate law. The main purpose for including corporate counsel in the early planning stages is to highlight potential legal issues, a move intended to reduce costs and emergency planning later in the M&A process. Yet, this same preventative orientation is not typically applied to specialists from human resources (HR) departments and backgrounds.

Historically, HR specialists have played a limited role in M&A assessments, being included mostly for their expertise in compensation system integration or disseminating acquisition information. Partly as a result, a 2001 study sponsored by the Society for Human Resource Management and conducted by Towers Perrin found acquiring firms are falling well short of achieving desired synergies in HR-related areas, including accessing talent in the target firm (Schmidt, 2001). The asserted importance of such "soft stuff"—including people and their capabilities—in the M&A process, of course, is not a new phenomenon. A recent epiphany, however, does seem to be taking place. An article in the *Economist* (January 4, 1997), for example, suggests that organizational culture, structure, processes, and networks (including technology) must be included as part of the due diligence process. Moreover, a growing number of researchers and consultants (e.g., Buono, 1997; Buono & Bowditch, 1989; Foley, 2003; Habeck, Kroger, & Tram, 2000; Marks & Mirvis, 1998) have also been focusing on the human and cultural dynamics associated with mergers and acquisitions.

Inferring from the data set forth by Lajoux and Elson (2002), real value creation following a merger or acquisition is rare, occurring in only 20 per-

cent of the cases. An obvious question is "Why?" Based on my experience examining the merger and acquisition process, a critical contributing component appears to be the inadequacy of the conventional due diligence process. Given the increasingly significant role that intangible factors are playing in postcombination success, it seems that due diligence efforts must be extended beyond traditional financial and legal analyses. Management consultants can play an important role in helping organizations alleviate this situation.

INTANGIBLE CAPITAL AND THE DUE DILIGENCE CHALLENGE

Part of the challenge in the due diligence process is to "rise above the monotony of document review and see the due diligence process in a larger context" (Donovan & Jaye, 1999, p. 195). Traditionally, due diligence procedures have focused on financial and legal documents, assessing whether a fair price is being paid in the merger or acquisition. General and economic operating conditions (Krasnow, 1992) or "potential risks and rewards" (DePamphilis, 2001) are typically evaluated. The objective of these assessments is to determine (a) whether or not the firm should proceed with the acquisition and (b) the appropriate purchase price or working capital adjustment (Krasnow, 1992). As a function primarily performed on the seller by the buyer, the internal focus of the investigation yields insight into what is viewed as important in the impending transaction.

DePamphilis' (2001) discussion of buyer and seller due diligence, for example, includes three primary reviews for the buyer:

1. Strategic/operational/marketing review, conducted by senior operations and marketing management;
2. Financial review relating to accuracy, timeliness, and completeness of the seller's financial statements, directed by financial and accounting personnel; and
3. Legal review focusing on corporate records, financial matters, management and employee issues, tangible and intangible assets of the seller, material contracts, and obligations such as litigation and claims, conducted by the buyer's legal counsel.

Suggesting that management interviews are "invaluable sources of information," DePamphilis (2001, p. 193) asserts "the prudent seller should also perform due diligence on the buyer" so the seller can ascertain if buyer funds are adequate. Burke (2000) suggests that due diligence further be extended to include customer needs, strategic fit, and shareholder value

"at the core of every analysis." As he argues, due diligence efforts and consequent results depend on what the company "expect[s] to gain from the transaction, including employees, customers, processes, products, or services" (Burke, 2000, p. 37).

A key dimension that readily contributes to the success of the due diligence process is "asking the right questions." Hence, the due diligence team should include experts from an array of professions. If these assessments are limited to financial experts and lawyers who focus on "the books," it is clear that questions about the more intangible, "softer" aspects of an organization will be overlooked or ignored outright.

Intangible Capital

Intangible capital, which is often used interchangeably with intellectual capital, has become an increasingly important factor in organizational success. The idea underlying intangible capital, however, goes well beyond the cognitive frame suggested by intellectual capital. Fitz-enz (2000, p. 10), for example, defines intellectual capacity as:

> the ability of a company to extract value from the organization's intellectual capital. Intellectual capital is composed of two types of organizational capital: intellectual property and a complex intertwining of process and culture, plus relational capital and human capital.

Within this context, *intangible capital* also includes larger behavioral, psychological, and emotional perspectives. The focus is on the "not touchable, sometimes not visible" factors contributing to personal and organizational value. As a recent study by Ernst and Young's Center for Business Innovation (2000, p. 1) concluded, a key difference between "today" and "yesterday" is the "growing recognition that intangible assets are the best predictors of an organization's future success ... and the more analysts use non-financial measures, the more accurate their earnings forecasts become." The recent attention given to this value-driven phenomenon is both timely and appropriate.

Jack Welch, General Electric's former chief executive officer, has also articulated the link between these intangibles and organizational returns, suggesting "financial returns come in the form of tangible and intangible business results, increased consumer satisfaction and career development for GE workers" (reported in Abernathy, 1999, p. 21). More recently, in an interview with Warren Bennis (personal communication, February, 2001), Welch further argued "in order to win big, evaluation results are a combination of three measures: customer satisfaction, leading to greater

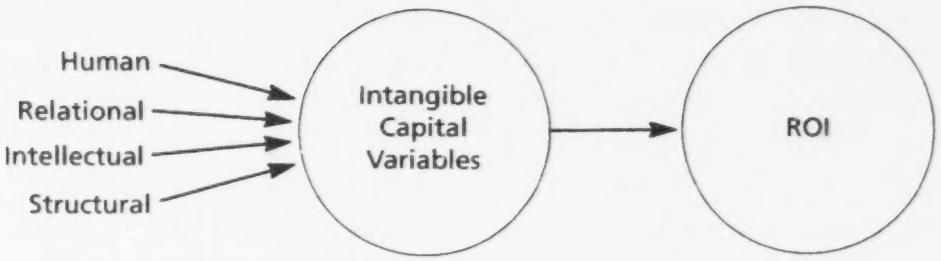

Figure 4.1. Adapted from Greene (1999) Intangible capital model

demand; employee satisfaction, leading to greater productivity; and cash flow, the verification of a working system." A significant part of the value of our corporations comes from such intangible assets as innovation, human capital, brand recognition, customer service, and quality. In the dynamic environment of today's information economy, these "intangible" variables must be a concern of employees, managers, investors, and regulators, as they are firmly connected to factors directly impacting the bottom line—and should be reflected in the due diligence process.

There are numerous models that attempt to capture the importance of the intangible dimensions of organizational life. A useful framework, for example, is the "Intangible Capital Model" created by Ernst and Young's Center for Business Innovation (CBI) and IBM's T. J. Watson Research Center, which links intangible factors to market value (see Greene, 1999). Within this context, Greene (1999) suggests that intangibles can be defined by their residual, accounting and conceptual dimensions. Such intangible investments as human, relational, intellectual, and structural capital combine to drive the outcome, or dependent variable, which is market value. In this sense, market value reflects the "path from 'perception creating' investments to behavior," where the process of creating and communicating perceptions requires balancing people and systems. However, since market value (i.e., stock price × number of outstanding shares) is not an appropriate variable for all organizations—coupled with recent accounting practices that have resulted in major irregularities—Gebhardt (2000) suggests a modified version of this model, replacing market value with ROI (see Figure 4.1).

According to Greene (1999, slide 5/32), the *accounting* view comprises the "nonphysical sources of probable future economic benefits to an entity that have been acquired in an exchange or developed internally from identifiable costs, have a finite life, have market value apart from the entity, and are owned or controlled by the entity." The *residual* view, in contrast, includes "all the elements of a business enterprise that exist in addition to monetary and tangible assets." In other words, the residual, intangible aspect of an organization is the difference between balance sheet figures

and what the buyer actually pays, with the anticipation that future revenues will result from the nontangibles. Finally, the *conceptual view* asserts that intangibles are "labels used to describe why the whole is greater than the sum of the parts."

In terms of the four components of intangible capital (Greene, 1999), *human capital* reflects factors associated with such issues as organizational life cycle, compensation, and work structures. Specific dimensions include: recruiting, hiring, training and development, and retention; salary, bonuses, incentives, and benefits; motivating initiatives and job design; and teaming, autonomy, and empowerment. The all-encompassing category, according to Greene (1999), is "employee performance."

Relational capital includes the interactions that connect individuals within and outside the firm. There are four relevant links, including: (1) the customer (brand equity which translates into loyalty, trust, and quality); (2) employee (corporate culture and reputation); (3) supplier (partnerships and economic webs, where the value chain goes both vertically and horizontally); and (4) investor (market value, volatility, and capital costs). The umbrella category, according to Greene (1999), is "brand."

Intellectual property, processes, research, and knowledge management are the issues included in *intellectual capital*, the ideas, innovation, and methods transferred across interactions. Specifically, intellectual property focuses on the legal domain and includes patents, copyrights, trade secrets, and customer links, where processes addresses methods, strategies, skills, and creativity. Company whitepapers, inventions, and methods of organization refer to the research issue, while knowledge management addresses databases and best practices. Intellectual capital also includes the organizational strategy.

Finally, *structural capital* includes organizational design, the organization's culture and information technology. It is the infrastructure needed to support and facilitate the first three classifications.

The Intangible Capital Challenge

According to Greene (1999), there are three basic challenges associated with intangible capital. In essence, how can we: (1) value (measure) intangibles better (i.e., get more money for the value and pay less to get it); (2) create more value (i.e., invest and manage) from our intangible capital; and (3) retain more (conversion) of this capital? Since people create ideas they share with other people and value comes from the behaviors and results those ideas influence, the idea is to "pay less to get more" (Greene, personal communication, June, 2000). Therefore, ROI depends on how investments in people—their ability to create and their ability to share—translate into relevant behaviors that have a direct and measurable influence on the bottom line.

Those intangibles associated with *perception* follow the uncertainty principle and require context. Even though perception is harder to measure, the ability to convert perception into behavior leads to intangible value—the path from "perception creating" investments to behavior, which can also be measured by ROI.

Intangibles and Accounting Due Diligence

Due diligence accounting has traditionally focused on the balance sheets, income statements, and cash-flow statements of both the buyer and seller. Rules and regulations governing these three statements are written and interpreted by the Financial Accounting Standards Board (FASB) (see Williams [2003] for is a concise guide that interprets and analyzes current FASB standards).

Historically, only visible, "concrete," "hard," or "tangible" variables were included in accounting assessments. Such tangible variables manifest as cash, cash equivalents, and other assets and liabilities. "Soft" or "intangible" elements, however, are now being recognized as important factors in today's business environment and are receiving widespread attention from the accounting community itself. These "soft" elements include intellectual property, brand name, knowledge, leadership, culture, patents, customer lists, leases, and trademarks, to name a few.

The concept of intangible capital is garnering further support from the accounting profession, where the Accounting Principle Board's (APB) Opinion 17 (Jarnagin, 1996) was updated in June 2001 to reflect these new perspectives. The long-standing APB Opinion 17 addresses the issue of "intangibles" and asserts "if something is not tangible, it is considered intangible, but only within the parameter of the purchase transaction." This means that the capital assets or concrete components that have been historically included in the balance sheet should have additional non-material items included in assessing the value of an organization. While these intangibles were traditionally excluded from the balance sheet—and due diligence assessments—they play an important role in M&A success (or failure). As they are increasingly being included in assessing an organization's bottom line, the result is a truer financial picture of the company in question. Since a basic intent of a merger or acquisition is to increase the value of the existing entities, it will be interesting to ascertain which player—the buyer or seller—ultimately profits from the inclusion of intangibles on the balance sheet

From an accounting perspective, DePamphilis (2001) suggests three steps in valuing businesses. His approach includes adjusting the data to accurately reflect the true profitability and cash flow of the firm, the deter-

mination of the appropriate methodology for valuing the firm, and the selection of the proper discount or capitalization rate (terms that are used interchangeably). Within this framework, "tangible book value" (i.e., book value less intangible assets) suggests the potential impact of noncapital entities.

Intangibles and Accounting Parameters

In June, 2001, the FASB issued new standards (Standards No. 142) on intangible assets that superseded APB Opinion No. 17. These new standards define intangible assets as "assets (not including financial assets) that lack physical substance ... [and] refer to intangible assets other than goodwill" (Appendix F, p. 117). Williams (2003, p. 23) suggests that such intangible assets are "long-lived assets used in the production of goods and services. They are similar to property, plant, and equipment except for their lack of physical property." Examples of this type of asset include copyrights, patents, trademarks, and goodwill.

According to DePamphilis (2001, p. 303), there are three categories of intangible assets: (1) *operational* intangibles, "the ability of a business to continue to function and generate income without interruption as a consequence of a change in ownership" (e.g., the assembled and trained workforce, operating and administrative systems, and corporate culture); (2) *production* or *product* intangibles, the "values placed on the accumulated intellectual capital resulting from the production and product design experience of the combined entity and the factors that help a firm sell a product or services" (e.g., patents, technological know-how, production standards, copyrights, software, favorable leases and licenses); and (3) *marketing* intangibles that help a firm sell a product or service (e.g., customer lists and relationships, price lists and pricing strategies, marketing strategies, advertising and promotional materials, trademarks, service marks and trade names, covenants to compete and franchises). Within this context, "goodwill," included at the bottom of the asset section, is the difference between the purchase price or fair market value of the tangible factors and the three aforementioned intangible assets, in other words, the difference between the hard calculated value and how much is paid by the buyer.

FAS-142 amends FASB Statement No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of,* and addresses financial accounting and reporting for intangible assets "acquired either individually or with a group of other assets but not those acquired in a business combination" (FAS 142, 2001, p. 2). After an intangible asset is initially recognized and measured based on its market value, a "useful life" is determined. As a way of assessing a finite useful life, an intangible asset is amortized over that period. If, however, an intangible asset is determined to have an indefinite useful life, it is not to be amortized until the useful

life is determined to be no longer indefinite. During the annual audit, the financial statements are revised to reflect the depreciation of the recorded assets. Additionally, each accounting period's intangible assets are tested for impairment to determine if the assumption of an indefinite useful life is still valid (Williams, 2003).

DePamphilis (2001) suggests "useful lives" are defined by "the legal protection afforded by the agency issuing protection, such as the U. S. Patent Office." "Useful life" and "impairment" are subjective issues determined by the company, and are based on the annual audits of the financial statements (Charles McPeak, personal communication, January, 2003). Gebhardt (2000) suggests the philosophy of the leadership also plays a crucial role in this consideration.

Other intangible variables, such as customer lists or employee know-how, are more difficult to define. A number of organizations, however, have emerged that focus on the valuation of such intangible assets. One such organization, the Patent and License Exchange (PL-X) located in Pasadena, California, recognized the desire for progressive organizations to track and report on intangible assets: "We designed our solutions to accommodate your organization's rapid growth." The PL-X offers a comprehensive suite of intellectual property (IP) valuation and management products and services (see www.pl-x.com).

These changes have significant implications for the due diligence process. First, the inclination of public accountants is to please the leadership of the client organization, especially since these individuals have the power to rehire the firm or shift to another. With an eye on securing future engagements, public accountants typically depreciate or amortize intangibles based on the philosophy and goals of the organization that hires them. Thus, in order to please their customer, they may feel pressure to agree with flawed financial statements, as seen in the recent Enron/Arthur Andersen fiasco. Second, what is included or excluded as "goodwill" or "intangible" reflects the idiosyncrasies of the leaders and organizational culture.

Thus, while the methodological process of accounting traditionally excluded intangible elements, a new push for assessment and consequent inclusion in the balance sheet has emerged in recent years. Many questions remain, however. For example: What intangibles should be included on the balance sheet? What is "indefinite useful life"? Who should make the decisions to include or exclude such intangibles on the balance sheet?

Human Resource Accounting

A significant aspect of organizational intangibles concerns human capital and the resources that comprise an organization's employment base. Human Resource Accounting (HRA) has been defined by the American

Accounting Association's Committee on Human Relations as "the process of identifying and measuring data about human resources and communicating this information to interested parties" (cited in Flamholtz, 1985, p. x). Coupled with the tangible aspect of assessing an organization's value, one can "measure the value ... by formulating a human resource 'balance sheet'... [which] demonstrates that human resources are an asset instead of an expense" (Mathis & Jackson, 1985, p. 532).

Flamholtz (1985) proposed five areas of HRA that are involved in the acquisition, maintenance, and utilization of employees: (1) position planning (e.g., job description and evaluation, approval of job requisition); (2) acquisition (e.g., recruiting, selection); (3) boarding (e.g., processing forms, briefing on benefits, relocation expenses); (4) learning (orientation, cost of performance less than criterion performance, training programs); and (5) maintaining, (e.g., updating, overhead costs). Yet, as Lev (2001, p. 76) argues, "We have the least systematic information on human resources," which punctuates the findings of Becker and Huselid (1998) who demonstrate a positive link between human resource practices and market value. The financial benefits to human resource planning (Killian, 1976) can be enlightening, as Cascio (1987) has demonstrated with his calculation of the cost of employee turnover, absenteeism, smoking, attitudes, union agreements, and personnel programs including utility, job performance, selection procedures, and development programs.

Intangibles and Legal Due Diligence

Legal considerations constitute the other "common" expertise involved in the due diligence process, once again a task usually performed by the buyer on the seller. DePamphilis (2001) states that federal and state regulations must be considered in M&A transactions and suggests that the seller's intangible assets be assessed in the legal arena as well. When intellectual property plays a significant role in a merger or acquisition, it is imperative that the business can be operated using the technology, trademarks, and copyrights without infringing on the patent rights of others (Michael Rainey, personal communication, February, 2003).

Lesser (2000) discusses some practical suggestions for the legal aspects of the M&A due diligence process, including: the need for flexibility, a confidentiality agreement (including formal ground rules), the importance of going beyond ordinary nondisclosure considerations, addressing worst-case scenarios possibility, and not relying on legal agreements as a "litmus test" for the transaction. Within this context, a "model" due diligence request should address and assess: corporate records; shareholder information; securities issuances; corporate finance; financial information; taxes;

infrastructure and operations; sales and marketing; officers, directors, and employees; intellectual property; tangible property; litigation and assets; insurance; partnership, joint venture, reorganization and acquisition agreements; and governmental regulations and filings.

BEHAVIORAL DUE DILIGENCE: THE HUMAN FACTOR

As the preceding discussion has emphasized, there are a number of intangible factors associated with traditional or "hard" due diligence in both accounting and legal assessments. Given the inherent realities associated with mergers and acquisitions—from the merger syndrome (Mirvis & Marks, 1992) to postmerger performance drift (Buono & Bowditch, 1989; Pritchett, 1985)—it is becoming increasingly apparent that intangible capital assessments must also be extended to the human dimension of organizations.

Buono and Nurick (1992, p. 19) state that the "personal, interpersonal, group and intergroup dynamics that follow the combination of two firms are significant determinants of merger success or failure." There are numerous examples of M&A failures, where these intangibles played a significant role. A good illustration is the recent Daimler-Benz/Chrysler megamerger. Personal anecdotes, myriad assessments of the financial, legal, and cultural battles between the companies, and dissension in top management all contribute to the story:

> This [merger] was a disaster, a culture clash from the beginning. I worked in the finance department for Mercedes in Germany for seven years. I accepted a transfer to work in the U.S. Unfortunately, we have several major conflicts in the accounting department that are brewing or have manifested. The Germans and Americans approach things so differently—from accounting practices to interpersonal styles (Anonymous, private communication, July, 1999).

Numerous examples in the popular press reflect further difficulties in the troubled partnership (cf. Ball, 2001; Tully, 2001; Vlasic & Stertz, 2000). Unfortunately, such foci have not traditionally played an important role in due diligence assessments.

From a behavioral perspective, Phillips (1996a, 1996b, 1996c, 1998) has identified six categories of "soft" or intangible capital variables: work habits, work climate, feelings/attitudes, new skills, development/advancement, and initiatives. These variables, which contribute to the value of any business, are especially relevant in a merger or acquisition of information age organizations where human potential is a significant determinant of long-term competitive advantage (Buono, 2003). The strong relationship between leadership decisions, organizational culture, behavior, and actions

also play a significant role in M&A success (or failure). It is, thus, imperative for leaders to identify which behaviors will shape the organization's internal environment.

While the growing importance of these factors may be increasingly accepted, numerous questions linger with respect to behavioral due diligence in a merger or acquisition. For example, who should oversee the assessment process? What are some of the key components that should be focused on? What role should "behavioral due diligence" play in the overall due diligence process? How might such an assessment be used to increase the probability of success in a merger or acquisition?

The Role of the Human Resources Function

By virtue of the tasks and functions associated with the human resources function, it seems logical to develop the behavioral due diligence theme in conjunction with human resource departments (HRD). Clemente and Greenspan (2000), for example, provide guidance for addressing behavioral aspects of the M&A process, suggesting that HRDs should be involved in acquisition strategy, target-company screening, and HR due diligence. The latter includes culture, employee composition, key employees, compensation issues, and benefits. Within this context, culture-related specifics include structural factors (size, age, and history of the company), political infrastructure (distribution of power), and employee emotions (feelings of individual employees toward company policies and the overall corporate context).

Clemente and Greenspan (1998, 2000) further suggest that setting the stage for postmerger integration includes integration planning, communication, and training. Based on a national survey to assess the role of HR in the M&A process, they found that while the HR function is beginning to become more involved in acquisition planning and integration, the respondents felt they could make an "an even more substantive strategic contribution." Unfortunately, they also found that the majority of HR professionals did not feel they had "sufficient technical knowledge to support the entire M&A process" (2000, p. 101). Thus, organizations should focus on enhancing capabilities and core competencies of their HR staff, especially in the area of behavioral due diligence.

Behavioral Due Diligence Considerations

While there is a void in the literature concerning behavioral due diligence assessment, some general guidelines are available. For example, an

illustrative due diligence checklist focused on "human asset management" that identifies key content and information areas has been created by Acquisition Works, a merger and acquisition strategy and integration consulting firm (see www.acquisitionworks.com). Their assessment focuses on business overviews (e.g., business domain, major competitors for people, organizational structure), current employees (e.g., current work force, skills and capabilities, union status, employee roster, immigration concerns, senior management team), employee relations (policies, performance management, litigation, labor law/equal employment), work hours relating to paid time off (holidays, vacation and sick policies, leave of absence), compensation (e.g., philosophy/structure, job descriptions, pay administration practices, annual performance bonuses, stock options, sales compensation program, executive compensation), employment (new employee orientation, turnover and recruiting statistics), administration (payroll, workers compensation insurance), and benefits.

A broader, albeit threatening, approach could be based on the mental health community's diagnostic tool, *The Diagnostic and Statistical Manual of Mental Disorders* (4th edition, revised [DSM-IV-R]). This validated and reliable tool provides a checklist useful to identify and diagnose "dysfunctional behaviors" at the individual level, yet with minor modifications it could be used to diagnose organizational "ills." The adjustments are relatively easy if one can envision a link between individual behavior and organizational-level manifestations. The result would be an instrument that provides insight into unhealthy or "sick" organizations. Recently Gebhardt (2002) proposed that consultants could use a revised or adapted DSM in change efforts. The original tool (for individuals) and a revised tool (for organizations) could establish a solid foundation for developing a behavioral due diligence checklist.

Cultural Due Diligence

Successful mergers and acquisitions are partly based on intangibles that shape and influence the organizations' behavior, such as the cultural characteristics of the buyer and seller. Significant improvements in M&A performance may well result when management both recognizes and pays attention to the importance of cultural issues.

Steffen (2000/2001) suggests that there are three basic differences between cultural due diligence and traditional approaches to the due diligence process: (1) it is not mandatory in law; (2) there are no agreed upon standards or processes and, as such, it may be variously conceived and implemented; and (3) it may be conducted by a range of parties. The aim is to obtain "an impartial view of the organizational being acquired" (p. 19).

While key human relations foci have included such factors as organizational structure, historical and projected headcount, personnel turnover patterns, profiles of senior management, and compensation arrangements (and the inequality that frequently exists with these plans), true cultural due diligence also involves such factors as organizational values and beliefs, how decisions are made, the level of collaboration and cooperation between departments and individuals, and so forth.

Marks (1999, p. 15) suggests that "culture clash afflicts every corporate combination," as implicitly dissimilar values manifest in explicit differences. It is important to realize, however, that while organizational cultures often clash during a merger or acquisition, the cultures themselves are rarely the problem. Rather it is the relatively low level of understanding of how one's culture—and the culture of the merger partner or acquisition target—shapes and influences behavior that creates difficulties (Buono, in press). Thus, it is important to obtain a sense of the different cultures and how they might influence key behaviors and interactions in the proposed merger or acquisition. As Marks (1999, p. 14) suggests, organizations must "instruct their analytical people to check out corporate values, organization structure, operating and decision making apparatus, reward systems, and other people-related matters." Marks (1999) also recommends a number of specific cultural due diligence tools, including Ashkenas' (1999) Cultural Assessment Worksheet and Leckie and Carrier's (1999) Merging Cultures Evaluation Index.

Stefen's (2000/2001, p. 20) cultural due diligence checklist focuses on the "values, perceptions, procedures and motivators whereby decisions are reached and collective effectiveness insured," and includes assessments of industry and regional/national culture, leadership style, corporate and brand values, and employee knowledge and behavior. Similarly, Carleton (1997) suggests twelve cultural domains, including: intended (business) direction and results; key measures a company uses to track its performance and the underlying rationale for these measures; key business drivers (relative to strategy); infrastructure including reporting relationships; organizational practices including formal and flexible systems; leadership, management and supervisory practices; general work practices; technology use; the organization's physical environment; employee perceptions and expectations; and cultural indicators and artifacts such as dress code, "face-time" versus actual work hours, and rewards and recognition systems.

Finally, Cameron and Quinn (1999) provide additional insight into and a structure for assessing organizational culture. Using the Competing Values Framework, they point to four major culture types: clan (flexible and internally focused), adhocracy (flexible with an external focus), market (external focus and stable), and hierarchy (stable with an internal focus). This framework can be used comparatively to assess and address numerous

interorganizational issues including leadership, organizational effectiveness, organizational identity, quality orientations, and approaches to human resource management. While a limitation of this method is its tendency toward stereotyping organizations, it is useful as an initial baseline for more in-depth cultural assessment.

Using such tools in M&A assessments can establish a basic understanding of each organization's dominant culture as well as differences in business unit cultures. This insight can be used to decrease potential conflict, especially when organizations operate from different value systems and have differing perspectives on effective and appropriate strategies and behaviors. The process also sets the stage for ongoing dialogue and establishes a framework for facilitating a working relationship between the buyer and seller's cultures.

THE CONSULTANT'S ROLE AND THE DUE DILIGENCE PROCESS

The main reason an organization merges with or acquires another firm is relatively straightforward and can be summarized in three words—*desired value added.* Yet, despite the exorbitant failure rate associated with mergers and acquisitions and the lack of value that they have created, these endeavors continue at a very high pace. The basic challenge, therefore, concerns how these strategies might become more successful. If, as a growing number of consultants, practitioners and theorists argue, the "people factor" is a sufficiently critical variable that adds value and forms the basis for a sustainable competitive advantage, then this dimension of pre-M&A planning and analysis must be made more explicit and systematic.

Similar to the limitations of traditional due diligence assessments, a vacuum also exists with respect to due diligence consulting. Accounting and legal issues are frequently the primary, if not sole, focus of the due diligence process. As this chapter has argued, however, intangible factors have always played a valuable role, even within the confines of this traditional emphasis. The time has come to extend our view of such intangible capital to explicitly consider the role of human resources and organizational culture in M&A due diligence. Clearly, merging and acquiring organizations would benefit from extending the expertise on due diligence teams to include specialists with the ability to systematically engage in behavioral and cultural assessments. Subject matter experts with "tangible" foci, such as accountants and lawyers, would benefit from the expertise of behavioral consultants and their "intangible" orientation. These additional perspectives should enhance the probability that the proposed merger or acquisition will result in added value.

The Management Consultant's Challenge in Behavioral Due Diligence

A basic challenge for consultants is to "know your audience," specifically the roles played and influence exerted by key stakeholders. As with any consulting engagement, the initial contact provides significant information for the impending intervention. Similar to the pressures faced by outside public accounting firms, management consultants may also face the political "one-eyed monster." In an effort to "keep the customer happy," short-term decisions may take precedence, initially salvaging a longer-term relationship but also creating a catch-22 tradeoff that can lead to poor decisions.

There are essentially two roles consultants can fulfill on due diligence teams: (1) content-oriented roles that provide specific, technical expertise; and (2) process-oriented roles, focused on enhancing the ability and interaction of the due diligence team. Conventional due diligence teams are composed of subject matter experts (e.g., lawyers, accountants, real estate experts, marketing specialists) who bring technical expertise in a specific area. As suggested in this chapter, the team should also incorporate specialists with content expertise in behavioral and cultural assessment. These individuals would be able to aid the team by helping to process data used in making "go" or "no go" decisions with their insight into the intangible realities of organizational—and interorganizational—life.

Process-oriented consultants, especially those participating in a nondirective capacity, can provide a "different set of eyes" for the due diligence team. Subject matter experts focus on their expertise, often to the exclusion of other areas. Thinking solely as an accountant or lawyer, for example, can create a sufficiently myopic view that might exclude important information. Thus, the ability to *hear* the nonspoken and *see* the invisible can readily provide a value-added service to the team. The process consultant can be charged with such tasks as keeping myopia in check, the team on course, and communication channels open. These individuals can play a vital role in keeping the team focused, asking the "right" questions for soliciting and clarifying information, maintaining perspective on the "big picture" without getting mired in the myriad of data surrounding the team, and coaching, communicating, and diffusing potential emotional situations. Considering the importance of coordination during due diligence review, a "gatekeeper" type role could also be useful. While this role is sometimes limited to handling information and functioning as a "control mechanism" to ensure document distribution across the team (Lesser, 2000a, 2000b), it still fulfills a crucial task. In this capacity, administrative fiascos can be thwarted, or at least minimized. As incapacitating groupthink can easily manifest in such situations, management consultants

can help to ensure a less volatile environment where data can become information, and information can become knowledge, setting the stage for a focused and effective due diligence assessment.

It is important to remember that intangible capital—people, relationships, knowledge and culture—plays a significant role in an organization and its ROI potential. While the financial and legal foci of traditional due diligence assessments will remain a critical aspect of precombination analysis and decision making, the time has come for these assessments to be routinely expanded to include a more explicit focus on behavioral and cultural analyses. Assessing these intangibles as part of the due diligence process should result in a more accurate portrayal for the acquiring and selling organizations.

As suggested in this chapter, while there are several tools available for assessing such behavioral and cultural issues, a significant deficit remains. Research and consulting efforts should focus on closing this gap, working to create more reliable frameworks and tools to guide assessments of the intangible realities of organizational life. As the number of M&A failures continues to grow around us, the necessity of considering intangible capital as a central part of due diligence will only become more apparent.

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Part II

DEVELOPING STRATEGIC ALLIANCES AND PARTNERSHIPS

CHAPTER 5

KNOWLEDGE TRANSFER AND ORGANIZATIONAL LEARNING IN STRATEGIC ALLIANCES

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INTRODUCTION

Knowledge management (KM) has occupied an increasingly important place in business affairs since its introduction during the early 1990s. The field has passed from an introductory phase to enter a certain state of maturity and is now proving its worth in firms that apply its principles and technologies (Despres & Chauvel, 2002; Rolland, 2001, 2002). KM, which is sought after by leading firms, has become a key topic in educational curricula and management development programs, and is a fixture in all the major consultancies. These developments are clearly rooted in shifting economic thought that recognizes knowledge as a primary factor of production and a source of competitive advantage. Firms are thus faced with the imperative of dealing intelligently with knowledge on a number of levels, including their own knowledge, their employees' knowledge, competitors' knowledge, public goods, proprietary goods, and so on. Without favoring any given approach, we generally view KM as a mindset that permeates a firm, leading to the conscious creation, use, and application of

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knowledge appropriate to its corporate context and strategic goals (Despres & Chauvel, 1999).

This view of KM often requires a significant shift in corporate culture and managerial assumptions that parallel the passing of one age (e.g., Fordist, modernist, industrial) and the dawning of another (virtual, postmodern, informational). As part of the "new age" of business, we are also witness to a definitive shift in the business landscape itself, with important changes that include the dissolution of integrated corporations and a new approach to industrial value networks. The emergence of these networks and alliances also signals an important challenge to the field of knowledge management itself.

LEARNING ALLIANCES

Strategic alliances are one form of the many interfirm linkages that are currently viewed as strategically important in the new globally competitive marketplace. Such partnerships have emerged as an important component of corporate strategy, especially over the last three decades (Hagedoorn & Schakenraad, 1994). Firms are increasingly organized in networks and the opportunity to share competencies and transfer knowledge has become a core part of interorganizational strategy and alliance management.

Strategic alliances can be defined as purposive strategic relationships between independent firms that share compatible goals, strive for mutual benefits and acknowledge a high level of mutual dependence (Kale, Perlmutter, & Singh, 2000; Mohr & Spekman, 1994). The literature is voluminous in this regard. Research has concentrated on understanding and classifying the motivations underlying these relationships (Kogut, 1988; Williamson, 1985), analyzing the choice of governance structure (Pisano, Russo, & Teece, 1988), and assessing the performance and effectiveness of alliances in general (Harrigan, 1986; Koh & Ventrakamann, 1991). The evidence is that alliances are increasingly being developed in core businesses rather than peripheral activities (Hamel & Doz, 1998), and are often designed to achieve competitive advantage by gaining new markets, realizing scale economies, and acquiring and/or developing new competencies. Alliance structures have the practical benefit of protecting the identity of alliance partners, constituting jointly-held projects, and prescribing rights and obligations while remaining relatively independent. They may occur between competitors and noncompetitors alike, and a range of forms is feasible depending on the alliance's strategic goals.

Organizational learning and knowledge transfer are increasingly important objectives in inter-firm agreements. In fact, the term "learning alliances" has been coined to designate "associations in which the primary

objective of the partners is to learn from each other" (Khanna, Gulati, & Nohria, 1997). Yoshiro and Rangan (1995) go so far as to argue that the implicit strategic objective for *every* firm that becomes involved in an alliance is "learning." Given the growing importance of such interfirm learning, this chapter examines a number organizational characteristics that favor efficient learning in "learning-based alliances." Drawing on a model derived from one of our earlier studies (Rolland & Chauvel, 2000), the discussion will focus on effective knowledge transfer and organizational learning.[1] First, we will examine the process of *knowledge transfer* under different intra- and interorganizational conditions, assessing elements of the model in the perspective of several case studies. Emphasis will be placed on the practical aspects of managing knowledge for effective learning alliances and the ramifications for consultants working in this area.

KNOWLEDGE MANAGEMENT AND KNOWLEDGE TRANSFER

There are multiple meanings associated with "knowledge management" such that any attempt to define KM results in a fragmented mosaic of views that exist within the general framework of an emerging cognitive science. A fundamental reality of the new economy is that knowledge is recognized as a vital source of competitive advantage. A key implication for the firm, therefore, is the critical ability to deal effectively and efficiently with its own knowledge to create value and gain a competitive advantage (Despres & Chauvel, 1999).

A primary difficulty is the fact that knowledge is not a simple, stable quantity, and there have been a number of efforts to define the root phenomenon. In this connection, we use the widely accepted distinction between explicit and tacit knowledge (Polanyi, 1962): *explicit knowledge* is that which can be codified and easily inscribed in artifacts and processes, and *tacit knowledge* is held in the mind of each individual, "know how" that is deeply rooted in action and experience. In the context of the firm, both types of knowledge exist at the individual, group and organizational levels, embedded in routines, processes, technologies, and throughout the firm's networks (suppliers, customers, competitors, etc).

Knowledge is fundamentally dynamic and created in social interactions among individuals and organizations (Nonaka, Toyama, & Konno, 2000). Despite a broad range of perspectives, researchers agree that the acquisition, creation, and application of knowledge are a key to the competitive development of a firm (Despres & Chauvel, 1999; Grant, 1996; Kogut & Zander, 1992, Spender, 1994; Teece, Pisano, & Shuen, 1987). A knowledge-based approach to business and management necessitates the identification and

valuation of knowledge, and its context-appropriate application. This last concern focuses on the transferability or application of knowledge, which is fundamental to its exploitation. Transferability is considered within the firm in terms of space, time, and mechanisms. While explicit knowledge is more obviously transferable (documents, best practice repositories, databases), tacit knowledge is better transmitted through practices (action) and social experiences (interaction). The transfer of both types of knowledge is important in the development of a knowledge value chain.

Considerable research has investigated the transferability of knowledge within an organization, a complicated issue given the "sticky" nature of knowledge and human and organizational complexity. Zander (1992) and Szulanski (1996), for example, note the difficulties involved in the transfer of tacit and explicit knowledge, but agree with others that the exchange offers new opportunities for mutual learning and interunit cooperation that (1) stimulate the creation of new knowledge and (2) contribute to an organizational unit's ability to innovate (see also Tsai, 2001; Kogut & Zander, 1992). While knowledge transfer is a prerequisite to learning, it requires effective networks and appears difficult across different units of an organization if preexisting relationships are not present (Szulzanki, 1996). As Gupta and Govinrajan (1986, p. 696) state, "the potential for synergistic benefits from resource sharing varies across strategic contexts and the realization of these potential synergistic benefits depends on how effectively linkages between SBUs are actually managed."

Tsai (2001) argues that the transferability of knowledge within organizational units is contingent on the network position of the transferor and the absorptive capacity of both the transferor and the recipient. Networks of interunit links favor access to and the exchange of knowledge between different units in an organization and, according to Tsai, the centrality of the position is critical. Absorptive capacity—a term coined by Cohen and Levinthal (1990)—depends on prior related knowledge. The lack of absorptive capacity is considered a major barrier to knowledge transfer within an organization (Szulanski, 1996). Taking a different tack, Osterloh and Frey (2000) point to the importance of intrinsic rather than extrinsic motivation on the transfer of knowledge. As they suggest, "organizational forms that emphasize participation and personal relationship better allow the transfer of tacit knowledge."

Interfirm knowledge transfer has also aroused significant interest in the literature, in particular, the potential of strategic alliances for acquiring new capabilities (cf. Albino, Garavelli, & Schiuma, 1999; Hamel, 1996; Inkpen, 1998; Mowery, Oxley & Silvermann, 1996). This research stream focuses on the role of learning and knowledge transfer in strategic alliances (Ciborra, 1991; Cohen & Levinthal, 1990; Doz, 1996; Szulanski, 1996), the content of what may be learned through alliances (Inkpen,

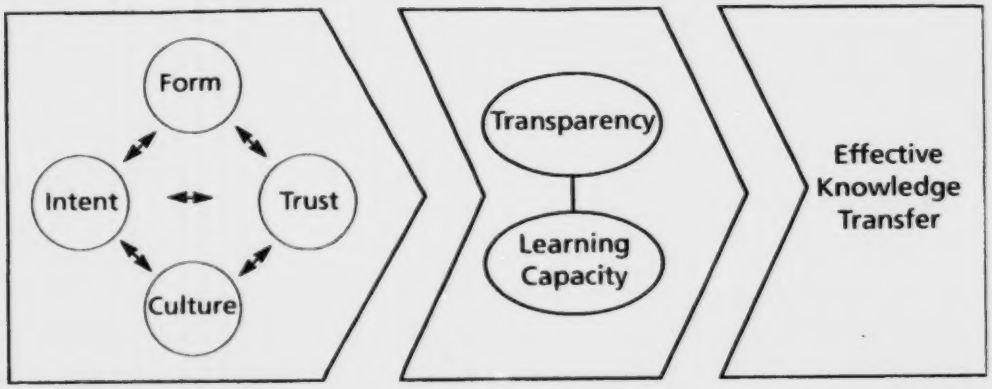

Figure 5.1. A Model of Knowledge Transfer

1998, 2000; Steensma, 1996), the impact of collaborative governance structures and collaboration agreements (Mowery, Oxley, & Silvermann, 1996), and the role of the leader firm (Albino, Garavelli, & Schiuma, 1999). In general, research in this vein has focused on the knowledge assets brought into an alliance by a partner, and the dynamics of learning and knowledge transfer within such an alliance. It has had relatively little to say, in contrast, concerning the knowledge gains experienced by the partners of a learning alliance.

A MODEL OF KNOWLEDGE TRANSFER

This chapter takes an ecological perspective on knowledge transfer within learning alliances, proposing a framework of conditions and dynamics that favor effective knowledge transfer between partners. As illustrated in Figure 5.1, the model is comprised of four conditions for effectiveness (strategic intent, culture, trust, and form), two dependent variables (strategic outcomes: transparency and learning capacity), and the interaction between them.

Strategic Intent

Strategic intent refers to the way a firm conceives its strategy in committing to a collaboration agreement. From an alliance perspective, it is possible to define three types of intent (Doz & Hamel, 1995, 1998): (1) *access*, when the acquisition and use of competencies are time limited and specific to constrained objectives; (2) *internalization*, when the transfer is processed in delimited boundaries; and (3) *integration*, when competencies are combined to leverage a common strategic competence, activity or product.

Culture

Organizational culture has been analyzed by Schein (1992, 1996) according to the dialectics of (1) external adaptation versus internal integration, and (2) the firm's ability to change versus its inclination to remain stable. These distinctions are adopted for present purposes, resulting in the assumptions that cultures more inclined to external adaptation (open cultures) and change (flexible cultures) will transfer knowledge and learn more effectively, while the firms with *closed* cultures tend to rely on resources that exist within their own boundaries. Firms in a learning-based alliance are faced with the necessity of adaptation in order to benefit from a partner's intellectual capital, and this frequently implies adaptation in terms of routines, core values, and basic business processes (Newman & Nollen, 1998). Obstacles to such adaptation are more visible in firms with a heavy hierarchical culture as contrasted with those that are relatively flat and autonomous.

Trust

Trust in learning alliances is seen as an important foundation for effective knowledge transfer and, in particular, tacit knowledge dissemination (Gulati, 1985). The proposition is that higher levels of trust between partners will lead to more effective knowledge transfer and organizational learning. Research around this issue (Bidault, Gomez, & Gilles, 1997; Kiling, 1980) has identified various determinants of trust, but most authorities agree that three are particularly telling from a knowledge transfer perspective: (a) interdependency, (b) the partner's reputation, and (c) prior experience.

Form

Organizational design or the form of an alliance determines the nature of its control, which, in turn, governs the nature of knowledge exchange and learning. A distinction is commonly made between three primary types of alliance architecture (Kogut, 1988): *nonequity,* defined by contractual relationships for a defined purpose; *joint venture,* creation of a joint entity; and *equity form,* strong commitment between two parties without a joint entity. It is commonly accepted that the joint venture is the form that most favors knowledge transfer due to direct social interactions between the participants (Kogut, 1988; Mowery, Oxley, & Silvermann, 1996).

While these four factors (strategic intent, culture, trust, and form) constitute the essential foundations of learning-based alliances, they also serve as the underpinning for two strategic processes—*transparency* and *learning capacity*.

Transparency

Transparency has been related to the "openness" of a firm (Hamel, 1991) and we define it as the extent of communication and knowledge transfer that occurs between partners. In a learning-based alliance, this exchange is obviously the goal but the level of success hinges on two factors:

1. the nature of the knowledge in play and the way it is articulated; and
2. the willingness to distribute and integrate this knowledge.

From an alliance perspective, important knowledge is often tacit and embedded in organizational routines (Zack, 1999). While explicit knowledge is considered relatively easy to transfer and may even be a public good, major concerns focus on the social processes that facilitate the transfer of tacit knowledge. Issues of transparency in strategic alliances, however, do not avoid the schism of competition and collaboration: even if a firm is willing to cooperate and acquire/transfer new competencies, it will also strive to protect its assets. To the extent a partner perceives threat in this regard, transparency will diminish.

Learning Capacity

Learning capacity or absorptive capacity refers to the ability to learn and assimilate new knowledge. The internalization of such knowledge is facilitated by shared cognitive bases (e.g., similar mental models and cultural backgrounds) and congruent communication structures (Shenkar & Li, 1999), both of which are generally enhanced through prior experience. R&D initiatives, training, and education can be important factors in this regard. The proposition is that firms that condition events prior to alliance formation through education programs that operationalize the factors noted in Figure 5.1 will tend to be more successful in enhancing their learning capacity.

Research at the intersection of learning-based alliances and knowledge management shows the "red thread" to be an orientation toward organizational learning coupled with a specific focus on knowledge and its transfer. Our proposition is that systems and structures can be established that enhance knowledge transfer in learning-based alliances, and the four fac-

tors in Figure 5.1 constitute the essential foundations. These appear to be the primary structural elements that, once established, lead to transparency and learning capacity.

LEARNING DYNAMICS AND KNOWLEDGE TRANSFER IN STRATEGIC ALLIANCES

As a way of illustrating the practical implications involving the concepts discussed above, this section describes the outcomes of a research program that examined 52 companies involved in learning alliances. Using structured interviews based on Figure 5.1, the research explored the knowledge transfer process: (1) within the alliance itself; (2) between the alliance and its parents; and (3) the impacts (if any) of knowledge transfer within the alliances on learning processes in the parent organizations.

Using qualitative research methods, the study was divided into two stages. During the first stage, we conducted structured interviews in 52 multinational companies to (1) determine the processes they used to manage knowledge in strategic alliances and (2) identify the key success factors they ascribed to these processes. This stage of the research was designed to field test the research model (Figure 5.1) and determine its validity. The majority of respondents held senior positions, including vice president or director of human resource development, vice president of executive development, vice president or director of strategy. This phase of research also sought to determine if and how companies integrated the knowledge gained through an alliance into their parent organization, and the characteristics of such processes.

Our research agenda is represented in Figure 5.2 which portrays two firms—Firm A and Firm B—that develop an alliance. Research questions focused on knowledge processes within the alliance ($A^I \cdot B^I$), the creation of new knowledge within the alliance itself ($A^I + B^I$), and any learning that occurred within the parent company as a result of knowledge activities within the alliance ($A^I \cdot B^I$ or $A^I + B^I$).

The second stage of research examined these factors more closely through multiple case studies. Our data gathering activity reached a point of "scientific saturation" (Miles & Huberman, 1988) with observations from 12 firms, at which point the same or similar elements were extracted from each field site. For each of these firms, data collection included archival sources and extensive interviews with individuals both within the alliance and the parent organizations. Key respondents were directly involved with formal KM processes. Overall, the fieldwork focused on: (1) the motivation, intent, form, type, and characteristics of the alliance; (2) the KM processes present

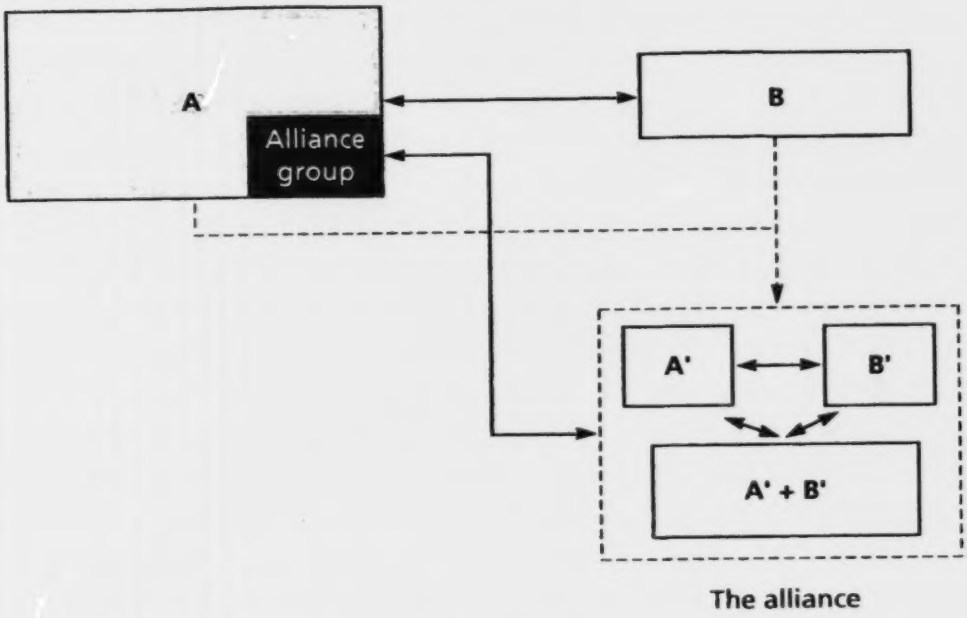

Figure 5.2. A Basic Model of Knowledge Transfer

in the alliance; and (3) the organizational learning processes present either in the alliance, between the alliance and the parent organization, or within the parent organization itself. Table 5.1 presents the general characteristics of the firms participating in this second phase of research.

Table 5.1. General Characteristics of the Firms Participating in Phase 2 of the Reseach

	Alliance 1 HP & Nokia	*Alliance 2*	*Alliance 3*	*Alliance 4*	*Alliance 5 CRI & IBM*	*Alliance 6 STM & Telecom P*
Type	Vertical	Horizontal	Horizontal	Horizontal	Vertical	Horizontal
Form	Contract	J.V.	Contract	J.V.	J.V.	Contract
Culture	Open	Flexible	Flexible	Open	Open	Non-open
Intent	Access	Access	Internalization	Integration	Access	Internalization

	Alliance 7	*Alliance 8 Telecom A & B*	*Alliance 9 Motorola & Cisco*	*Alliance 10 Danone China*	*Alliance 11*	*Alliance 12*
Type	Vertical	Horizontal	Transversal	Transversal	Horizontal	Vertical
Form	J.V.	J.V.	Contract	J.V.	Contract	Contract
Culture	Non-open	Non-flexible	Open	Flexible	Open	Open
Intent	Integration	Integration	Internalization	Internalization	Integration	Integration

Knowledge Management Processes

Based on 91 structured interviews in the 52 firms, it appears that firms use a variety of KM processes in their alliances and that key success factors are dependent on the nature of the knowledge being transferred. The major motivation in these learning alliances was the acquisition, exchange, or development of specific knowledge. Respondents indicated, however, that while knowledge processes were often successful within a particular alliance, the transfer of learning back to a parent firm was less certain.

A synthesis of the interview results showed that variations in knowledge processes and outcomes were largely related to two issues:

1. The **nature of learning** itself, distinguishing organizational learning *within* the alliance from organizational learning that may occur *between* the alliance and a parent firm (Rolland, 2001); and
2. The **nature of knowledge,** distinguishing technological knowledge (Henderson & Clark, 1990) from managerial knowledge (Ansoff, 1965; Rolland, 2001).

The first factor relates directly to the core activity of an alliance while the second implies systemic, strategic, organization-wide knowledge that may be generated from alliance activity.

Case studies extended these findings by exploring the transfer process along two dimensions: (1) knowledge management within the alliance involving the management, transfer, and acquisition of interorganizational knowledge; and (2) the link between the learning generated by an alliance and the return effects to a parent firm. Within this context, the firm was the unit of analysis and we analyzed how knowledge that was acquired in an alliance was transferred to a parent firm. The following presents a brief discussion of six of the alliances studied in this phase of the research.

Telecom A–Telecom B

Telecom A and Telecom B are European telecommunication operators that developed an alliance around the concept of creating a worldwide telecommunications network. Their motivations were grounded in the logic of globalization: developing a worldwide network would provide operational economies and improved R&D through technological synergies. The "hidden agenda" for each partner was to develop an insider's view of the technologies and knowledge assets owned by the other, but this remained an open "secret" rather than a strategic objective. The stated goal was to combine knowledge and competencies in order to develop a telecommunications network held in common.

The organizational cultures of the two firms were similar. Both companies were multinational, bureaucratic and operating in the same markets. The distribution of roles within hierarchical structures was similar, as were their competitive analyses and resulting corporate strategies. At the alliance level, managers and engineers shared similar professional cultures (telecommunication or computer science) and communicated with the same technical language.

The level of trust between the partners was generally low, however, and each firm sought to influence the other with its strategic and technological preferences. An example involves the terms of the contract underlying the alliance which, when published, produced an 1,800 page volume that became known as "the bible." This contract detailed the expectations of each partner and attempted to preview all possible situations with their appropriate course of action. On technological matters, the level of trust was relatively good but this "technological trust" was hindered by misgivings at the managerial and strategic levels. Transparency was low at the level of the firm and both partners surrendered strategic information and knowledge with difficulty. Individuals were also guarded with regard to divulging "secret technology."

Motorola–Cisco

Motorola and Cisco created a contract-based alliance with the goal of developing new information technology (IT) network architectures. As a company, Motorola held that three values leveraged significant benefits from an alliance: performance, commitment, and trust. Both partners declared at the outset of the alliance that its success would be based on the parent firms' ability to learn from each other on the basis of trust. The alliance between Motorola and Cisco was created on these foundations.

Motorola possessed the technical competencies needed to develop the type of chips that Cisco required to launch new router products. Cisco, on the other hand, had competencies in IT architectures and networks that would benefit Motorola. Motorola, for example, had developed a specific product line based on Cisco's requirements. Both partners acknowledged the others' special competencies and sought complementarity. In a joint product development environment, for example, the decision-making process was relatively clear and efficient due to the high levels of trust in play. Each partner had confidence in the other's proposition and expertise in the field. This orientation both arose from and contributed to an atmosphere of real collaboration and timely action, and was anchored in similar corporate cultures and values.

Hewlett Packard–Nokia

Hewlett Packard (HP) and Nokia established an alliance in 1991 with the goal of developing advanced software products for mobile telephony. Nokia's operating philosophy holds that innovation should be nurtured with well-defined synergies and structured coordination rules. Nokia does not subscribe to "order by chaos" management principles. In contrast, HP retains aspects of its start-up culture with open space environments and emancipated management styles, and declared, in fact, that one of its credos is "order by chaos." These two cultures were at odds as the contract-based alliance was launched.

These differences in managerial culture became significant barriers to technical collaboration. Despite their orientation toward innovation and cutting-edge progress, the alliance experienced problems because both parents operated in terms of their native managerial style. HP tried to sort out the issue by organizing plant visits around the world and presenting its organization for greater understanding. This solution was partially effective, but it was still difficult for managers to work together. Nonetheless, objectives were met largely due to common technological and competitive goals. The governance of the alliance was—and continues to be—based on trust in technological competence. This form of trust underpinned the relationship and reduced the effects of the more contentious managerial situation.

STM–Telecom P

ST Microelectronics and Telecom P undertook a joint venture in 1991 to develop a new chip for the mobile telecommunications industry. The motivations were to share R&D costs, develop new technologies, and share knowledge concerning the market. Initially competitors, they agreed to set up and operate a new, common production line at one location, with the output—the chip—sent back to each parent firm for application.

STM operated with a very dynamic and flexible organization, while Telecom P was a bureaucratic firm with a highly layered hierarchy and a rigid power structure. As a result, individuals in the alliance found it difficult to make a decision before conferring with top management. For example, the R&D phase required a decision between two different and opposing options, which would have a radical impact on the alliance's activity and technological output. STM's answer was quick and clear with the company's board making the decision in two days; Telecom P, in contrast, took more than two weeks for its decision which, when delivered, was still unclear due to the different levels involved in the decision-making process. Nevertheless, technological trust and transparency carried the joint venture forward to a successful conclusion in terms of production. The two

partners have renewed their cooperation twice and continue to create new technologies and knowledge.

Danone–China

Danone has developed numerous alliances with different firms all around the world with the goal of transferring knowledge. The company entered China by developing an alliance that created a joint entity, which included Danone employees, a Chinese retailer, and the mandatory governmental partner in order to determine "how to sell yogurt and milk products" in China. Danone had product know-how and sought market knowledge from local retailers and a fuller understanding of the procedures and schemes of thought that guided sales of such products. The Chinese retailer had knowledge of local distribution practices and consumer attitudes (beliefs and values) that would affect their sale of Danone products in the Chinese culture.

Trust was contractual, due to the alliance structure and the presence of a mandatory governmental partner. The Chinese, for example, entered the alliance with some reluctance because they were aware that Danone was likely to gain access to new markets. While this posed a potential threat to their own operations, the distributors were also interested in learning new marketing techniques. The gap between both cultures was an important hindrance (e.g., different language structure, communication habits, mental models) and led to significant difficulties. Nonetheless, the results of this collaboration allowed Danone to operate independently after a time, and served as a springboard for the company's expansion throughout China.

CRI–IBM

CRI is a dynamic, medium-sized company with open planning and decision-making processes. IBM is a well-known, large multinational company with well-established processes and procedures. These two firms developed an alliance with the goal of developing new IBM software, which, clearly, required joint decision-making processes. Belonging to the same industrial sector, they possessed a similar background but operated according to different business philosophies. The alliance was motivated by the acquisition of new technological competencies that could be applied to new product development. Trust was high but constrained by an imbalance in firm size: CRI perceived a threat given IBM's size and power, even if experience showed that this threat was unjustified. To combine the two systems and planning processes, CRI and IBM decided to create a common decision-making process for the alliance—a decision that provided balance and stability.

After one year's experience, CRI decided to apply the planning and decision-making processes throughout its own organization. This move was successful for employees who had either been a part of the alliance or in close contact with it, but failed with other employees who rejected the planning and decision-making process as foreign to their organizational culture. The "not invented here" syndrome was too strong for transferring the managerial system to CRI.

Knowledge Transfer Within the Alliances

The fieldwork described in the preceding section provides insights with regard to the model presented in Figure 5.1 and the issue of knowledge transfer in alliances in terms of technical and managerial knowledge.

Technical Knowledge

The level of trust that existed between the partners was a determining factor in the successful transfer of knowledge in the alliances we studied. Trust, as noted in Figure 5.1, is construed as a presumption of correct behavior on the part each party in unforeseen situations, in essence as a way of coping with uncertainty (Bidault, Gomez, & Gilles, 1997). At Telecom A and B, for example, the "technological trust" that existed between each firm's engineers and scientists was hindered by mistrust at managerial and strategic levels. The parent firms resisted communication on strategic issues while individuals guarded against disclosing "secret technology" when, in reality, the knowledge they held was publicly available, even though it was used differently by each company. The 1,800 page "bible"—the contract which founded the alliance—is a concrete manifestation of the resulting problems: each day, engineers in the alliance would consult the "bible" and seek confirmation with their parent firms by videoconference to determine if a given activity fell within established guidelines. This lack of trust hindered knowledge development and learning, and put the alliance at risk.

Realizing what was at stake, the partners took a Greenfield approach and focused the alliance on developing new technologies that departed from the knowledge stocks held by each firm. Mixed groups of engineers and managers from each firm were created where individuals could put their technological trust to work. Engineers began to share insights, managers developed hunches, and together these groups began to work toward attaining commonly shared goals in the alliance itself. This welded people together around a mission to the extent that the Telecom A–B alliance continues to be a relatively autonomous, effective and efficient operation for both parent firms. Similarly, the CRI–IBM alliance developed common

technical knowledge in order to establish stability and efficiency in operating processes due to relatively high levels of trust.

The experience of the other alliances that we studied suggests that developing common technical knowledge tends to facilitate knowledge transfer *within* the alliance. Nine of the 12 alliances in our research program employed this method, consciously or not, with promising results (see Table 5.2). Only one failed in the knowledge management process within the alliance. On the other hand, when partners focused only on technical knowledge transfer, only one of three was successful in the alliance knowledge management process, most probably because they failed to account for contextual dimensions of the cooperation.

Table 5.2. Success vs. Failure In Technical Knowledge Transfer Within The Alliances Studied

Alliance	*Method*	*Result*
Alliance 1 (Hp & Nokia)	Develop common knowledge	Success
Alliance 2	Develop common knowledge	Success
Alliance 3	Develop common knowledge	Failure
Alliance 4	Transfer	Failure
Alliance 5 (CRI & IBM)	Develop common knowledge	Success
Alliance 6 (STM & Telecom P)	Develop common knowledge	Success
Alliance 7	Transfer	Failure
Alliance 8 (Telecom A & B)	Transfer	Success
Alliance 9 (Motorola & Cisco)	Develop common knowledge	Success
Alliance 10 (Danone China)	Develop common knowledge	Success
Alliance 11	Develop common knowledge	Success
Alliance 12	Develop common knowledge	Success

This assessment leads to the following proposition:

Proposition 1: *When trust is low, developing common technical knowledge will encourage knowledge transfer within the alliance.*

Managerial Knowledge

Research and experience argue that misunderstandings of others' behavior and/or communication are barriers to the effective transfer of managerial knowledge, and that behavior and communication are anchored in culture, however defined (organizational, national, linguistic and so on). Nokia and HP, for example, encountered cultural issues in their alliance that centered on the behavioral expectations of their managers. Nokia managers were taken aback by HP's entrepreneurial style and,

despite the worldwide plant visits that HP organized to breach the cultural distance, these two partners found it difficult to work together. STM and Telecom P faced similar issues: STM's fast-paced and flexible organization clashed with the managerial rigidity of its bureaucratic partner.

To resolve these problems, both alliances first worked to alter managerial expectations so that each would be able to better accommodate the partner's cultural differences (e.g., HP's plant visits). Later, both firms initiated measures that allowed the alliance entity to operate with greater autonomy, which, as one would expect, tended to harmonize cultural expectations among the individuals involved. In these two cases, the alliances became self-governing and were successful in creating, sharing, and transferring managerial knowledge to the extent that HP and STM considered them effective partnership experiences. Similar dynamics were observed in the other alliances. For example, the CRI–IBM alliance developed a common decision-making process, specific to the alliance

These observations lead to our second proposition:

Proposition 2: *Greater levels of operating autonomy and the ability to adapt managerial expectations will facilitate the transfer of managerial knowledge between partners with cultural differences.*

Knowledge Transfer from the Alliance to the Firm: Technical Knowledge

Learning alliances are generally created to acquire or develop new knowledge that is then transferred back to the parent firm. Our research indicates that the transfer process occurred relatively easily in the 12 firms we studied, but long-term success is best evaluated by the processes implemented to use and apply knowledge. At least two mechanisms, which are regularly cited in the literature, exist for this purpose: (1) the transfer and rotation of personnel (Nonaka, 1994) which shape organizational thought processes (Hedlund & Nonaka, 1993); and (2) strong and consequential lines of communication from the alliance to the parent firm (Hamel, 1991). Parent firms that involve alliance units at a strategic level foster an integration dynamic that increases the chances of successful knowledge transfer (Doz, 1996).

In our research, the strong interactions that HP established with both Nokia and its alliance entity supported the development of new technology and encouraged knowledge transfer. Similarly, Danone sent managers to China to acquire market knowledge and know-how concerning Chinese consumption patterns. STM and Telecom P built an alliance to develop a joint production line whose outputs (the chip) were sent back to the parent for strategically appropriate application As these cases suggest, when

an alliance considers itself as (or is treated as) a peripheral activity, the level of knowledge transfer is considerably less. This observation is closely connected with the idea of top management commitment, which has also been shown to be a significant factor (Badaracco, 1991; Inkpen, 1998).

This assessment leads to our third proposition:

Proposition 3: *Knowledge transfer from an alliance to a parent firm is facilitated by (1) integration in the firm's strategic processes, (2) significant interaction between the firms, and (3) the rotation and transfer of personnel.*

Knowledge Transfer from the Alliance to the Firm: Managerial Knowledge

Our research indicates that the transfer of managerial knowledge from an alliance entity back to the parent firm is difficult and often unsuccessful (Rolland, 2001). For the purposes of this study, we examined six categories of managerial knowledge that are summarized in Table 5.3: knowledge related to general management, alliance management, clients, human resources, marketing, and information systems.

Table 5.3. Nature and Origins fo Managerial Knowledge

	Origin of Knowledge		
Type of knowledge	*Parent Firms*	*Individuals*	*Intra-Alliance*
Alliance management	Alliance 3; Alliance 7; Alliance 9		
General management	Alliance 3	Alliance 10	Alliance 2; Alliance 12
CRM			Alliance 8
H.R.M.		Alliance 10	
Marketing			Alliance 11
Information System management	Alliance 3		Alliance 6; Alliance 10

The results from interviews and the case studies revealed that parent firms were generally unable to transfer and integrate new managerial knowledge from their alliance entities. To understand why, we focused our analysis on the organizational learning process itself and identified three primary factors that intervened at different phases in the learning process: learning intent, culture-based barriers, and learning capacity.

Learning Intent

The first factor involves low levels of learning intent during the initial phases of organizational learning—what Boisot (1995) has termed the

scanning phase. In this phase, the organization actively scans its environment for cues and elements that it later assembles to form learning opportunities. Firms in our research evidenced constricted scanning activity due to low learning intent. In essence, parent firms appeared unwilling to learn from their alliance entities and did not scan for learning opportunities, thus blocking the organizational learning process. HP, for example, was not interested in learning new managerial knowledge from its alliance with Nokia and consequently ignored any such opportunities that presented themselves. Technical knowledge, on the other hand, was high on HP's agenda and a focus of attention. Similarly, Motorola and Cisco centered on the acquisition of technical knowledge and even if the alliance was efficient, they did not seek other learning opportunities.

Culture

Culture-based barriers to organizational learning centered on differences in values and beliefs which, for the firms involved, appeared to be unbreachable. In the alliance between Telecom A and B, for example, the alliance entity had developed a culture based on speed, flexibility, and innovation that was well adapted to its environment. This alliance culture, however, differed from the bureaucratic culture at Telecom A. Thus, although the firms wished to "learn" and integrate elements from the alliance culture, it was difficult to accomplish this level of knowledge transfer. Similarly, given STM's flexible structure and Telecom P's bureaucratic style, the gap between corporate cultures hindered the transfer of newly acquired managerial knowledge to the parent firm even through this was successful at the alliance level.

An underlying problem is that organizational culture subsumes the subtle, but profound, aspects of everyday organizational life—including beliefs, expectations, values, cognitive maps, and systems of thought—which remain largely out of awareness. Attempting to integrate elements from a different cultural set, therefore, requires appreciation of the role of culture in organizational learning. To initiate a change management process, for example, it is necessary to "unfreeze" the existing culture in order to invoke new insights, habits, and behaviors (see Lewin, 1951).

Learning Capacity

Learning capacity, which is a core dimension for knowledge processes involving alliances, entails two dimensions (Rolland, 2001):

1. Intraorganizational learning capacity, which involves learning within the alliance entity; and
2. Interorganizational learning capacity, which involves transfer and integration of learning back to the parent firm(s).

Where knowledge transfer from the alliance to the parent firm is effective, learning capacity intervenes at the end of the learning process through the diffusion and abstraction of the managerial knowledge that has been acquired. This dynamic leads to either a rejection of the new knowledge or transformation of past beliefs. The alliance between CRI and IBM provides an illustration of both cases. CRI' s alliance entity consciously decided to, and was able to, integrate structured processes and decision-making procedures stemming from the alliance. After approximately one year, however, CRI tried to integrate this knowledge in the parent firm with modest success: while the company was successful with managers who had been involved with the alliance, it was unsuccessful with those who were not part of the alliance. The group of managers who were not involved with the alliance appeared to suffer from the "not invented here syndrome" (Harrigan, 1996) and rejected the change. This relatively classic scenario is illustrated in Figure 5.3.

Individuals who have little or no involvement with an alliance have low levels of learning capacity, which renders them less likely to integrate the managerial knowledge developed in the alliance. This notion can also be approached from an action research perspective (Argyris, 1993; Boshyk, 2000; Rolland, 2001), which holds that individuals learn more successfully through action and the collective mobilization of experience.

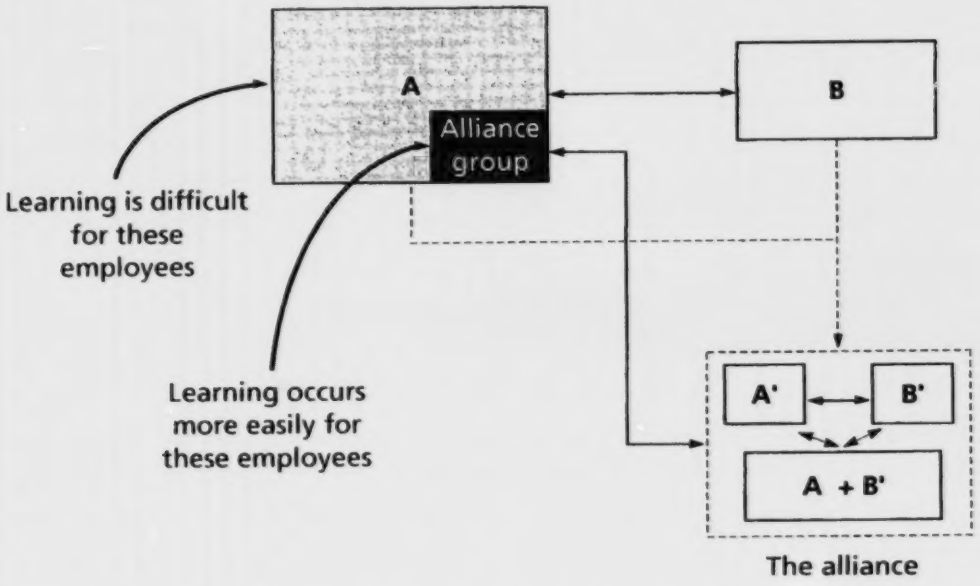

Figure 5.3. Dynamics of Knowledge Transfer in Learning Alliances

CONCLUSIONS

This chapter has investigated a number of factors that influence the transfer of knowledge in learning alliances. We have argued that at least two categories of knowledge—managerial and technical knowledge—condition the processes that favor or disadvantage the transfer of knowledge and organizational learning. As illustrated in Figure 5.4, our research further defines a number of factors that differentially affect the processes of organizational learning and knowledge transfer, both within an alliance entity and from an alliance entity to the parent firm.

These insights into the knowledge transfer process raise a number of implications for change agents and consultants intervening in strategic alliances. Within an alliance entity, intent appears to be fundamental for knowledge transfer. While the form itself is less important, a joint entity favors knowledge transfer due to direct social interaction among participants. Both trust and culture are significant moderating factors. These four conditions—intent, form, trust, and culture—shape the outcome of knowledge transfer and learning, especially during the early stages of an alliance. They constitute prerequisites for the commitment required by two parent firms to develop a learning alliance in which knowledge will successfully flow and be exchanged. At later stages of operation, we have found that the creation of new technical knowledge within the alliance smoothes the reluctance to share knowledge and leverages exchange between members when trust is initially low.

As far as managerial knowledge is concerned, alliance autonomy tends to reduce cultural barriers and facilitate the development of an environment with indigenous values where managerial knowledge will emerge and flow. The successful transfer of knowledge from an alliance to a parent firm, however, will still be mediated by the organizational culture of the

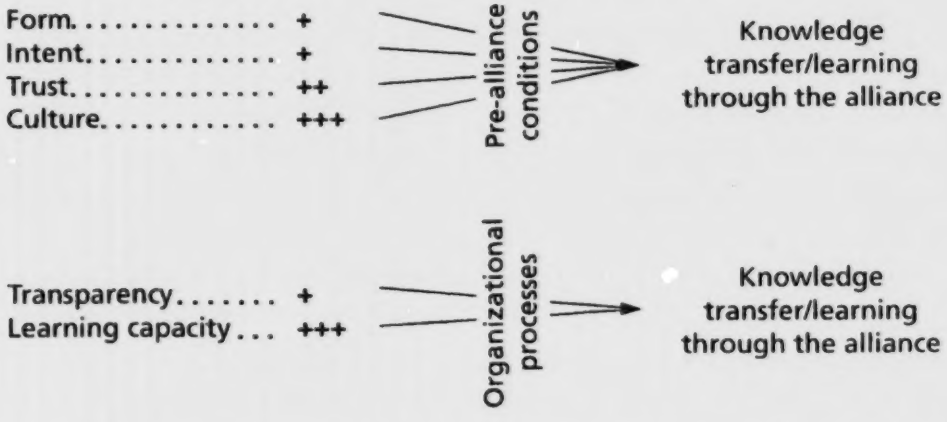

Figure 5.4. Principle Factors, Interaction Effects and Outcomes in the Model

parent firm and the learning capacity inherent in the alliance. From an intervention perspective, technical knowledge is more easily transferred when parent firms establish strategic links, rotate personnel, and ensure top management commitment. Managerial knowledge transfer, in contrast, is facilitated by adequate levels of learning capacity but our study shows that transfer succeeds best with individuals who are immersed in alliance-related activities.

Table 5.4.

	Transfer of Knowledge	
Nature of Knowledge	*Intra-Alliance*	*Alliance to Parent Firm*
Technological Knowledge	Trust	Strategic Intent
Managerial Knowledge	Autonomy & Alliance Culture	Learning Capacity

From a consulting perspective, the practical implications of this research are captured in Table 5.4. The intra-alliance transfer of technical knowledge has, as its principal requirement, the development of trust within an alliance entity. The transfer of technological knowledge from an alliance entity to a parent firm, on the other hand, is significantly dependent on strategic intent and supporting processes. The intra-alliance transfer of managerial knowledge requires the development of an autonomous, alliance-based culture, akin to a community, in order to establish requisite values and communication structures. The transfer of managerial knowledge from an alliance entity to a parent firm, in contrast, is more dependent on the level of learning capacity in the parent firm. As we move toward a fuller understanding of knowledge transfer processes and the dynamics of intra- and interorganizational learning—in terms of intent as well as outcomes—consultants will be better prepared to assist their clients in enhancing their ability to both learn from and contribute to their alliance activities.

NOTES

1. We defined *organizational learning* as knowledge integration in the organizational knowledge base that occasioned understanding of the uses of the knowledge, leading to an organizational change or insertion of a new learning process (Senge, 1990).

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CHAPTER 6

COMPLEX LEARNING PARTNERSHIPS

Creating the Connections in International Alliances

Iris Berdrow

Over the past two decades, the global business environment has been shaped by four broad trends. The first is the formation of global trading blocs (Stang, 1994). International trade agreements have resulted in global trading regions as seen in North America, Europe, and Pacific-Asia. These trading blocks provide member nations with freer trade internally and protection against other trading blocs. In return, they demand a more global perspective than the traditional nationalistic orientation held by governments, business people, and individuals (Dent, 1993). The increased competition created by this freer access has forced companies to think in global terms, even if they continue to do business only in their home country.

The second trend is the formation of strategic alliances (McFarland, 1993). Companies are entering into collaborative agreements through the formation of strategic alliances both within and across trading zones. While strategic alliances are not a new phenomenon, what is unique today is the numbers that are formed between companies that still actively compete

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with each other on some level despite the alliance. Organizations such as Delta Airlines Inc. and Aerovias de Mexico, Molson and Miller Brewing Corporation, Hewlett Packard and Canon, and Hitachi and Texas Instruments have pooled resources to achieve jointly what they could not manage alone—global competitiveness. Most of these collaborations were formed to achieve specific outcomes, outcomes that could still be used by each partner to aggressively grow their own market share. Yet, they represent a fundamental shift in attitude, in essence admitting "We cannot do it all alone."

The third trend is the emergence of global organizations (Byrne, Kerwin, Cortese, & Dwyer, 1994). Large multinationals that once operated as regional fiefdoms, with varying degrees of centralized control, are now breaking down walls of isolationism and becoming global communities. With increasing pressures to become lean and efficient, multinationals are developing capabilities and generating resources that benefit more than just the originating unit. Pooling resources and capabilities generated by separate units, allows for the development of new innovations and products. Instead of competing to control valuable niches, new value is found in collaborative efforts within the boundaries of the organization.

A fourth trend is the growing realization that global competitive advantage is based on creating value through knowledge resources rather than physical and natural resources. The cost of making products or providing services has been reduced to levels where radical improvements no longer impact performance outcomes in significant ways. Natural resources can be sourced from around the world, wherever supply is greatest and harvesting costs are lowest. The knowledge that drives innovation, creates efficiency and improves performance is the competitive advantage in this new global business reality.

The creation and leverage of knowledge within and across organizational and national boundaries has become of great interest to academicians, consultants, and practitioners. We have spent a decade trying to understand the phenomenon of organizational learning and have emerged more frustrated than enlightened. We are now struggling with creating and managing the knowledge-based organization—a similarly difficult phenomenon. One explanation for this struggle is the human desire to simplify and automate processes that are complex, interactive, and evolutionary. Learning to learn is a difficult process. Managing knowledge as if it were a tangible, quantifiable resource is impossible. Building a technologically driven, information-based tool, filling it up with "knowledge" and drawing on it when needed to create "solutions" may be a goal, but it rarely, if ever, truly enhances an organization's performance.

In summary, collaborations are being formed within and across organizational and cultural boundaries. These collaborative endeavors are

intended to pool resources, one of the most important of which is knowledge. Yet, managing these knowledge resources is a complex process, with intertwined strategic and behavioral as well as technological dimensions. As such, this chapter focuses on the myriad strategic and behavioral considerations involved in managing knowledge resources, calling for knowledge connections within international collaborations that maximize positive outcomes while minimizing the negative effects of environmental and relational complications.

LEARNING PARTNERSHIPS: THE KNOWLEDGE CHALLENGE

Knowledge is far more than information. Knowledge, while residing in tangible assets, processes, technologies, and human beings, is a socially created and applied resource. It is context bound and only manifests itself through appropriate application to a specified task. For knowledge to be leveraged and institutionalized, it must be interpreted and integrated (Crossan & Berdrow, in press). Within this context, a particular concern for managers of international alliances (IAs) is that knowledge is specific to the organizational and national context in which it is created. Applying knowledge to new contexts, therefore, requires transformation. For all of these reasons, effective learning—the creation, adaptation, and leveraging of knowledge—within partnerships and alliance networks must be carefully managed.

There are two perspectives that have been taken on cooperative agreements: one is derived from the resource-based view of the firm; the other from the competency-based view of the firm. The resource-based view assumes the firm represents a portfolio of resources consisting of three types of capital: physical (technology, plant, and equipment); human (training, experience, and judgment); and organizational (systems) (Barney, 1991). This perspective shows promise in explaining the complex phenomenon of relationships between foreign companies since these IAs are typically formed to pool unique yet complementary resources. The competency-based view, in contrast, assumes the firm represents a portfolio of core competencies (Hamel, 1991). It is often difficult, however, to discuss a competency other than as a resource of the firm (Hedlund, 1994; Wernerfelt, 1984). Based on the work of theorists such as Hedlund (1994) and Nonaka (1994), core competencies, skills, and knowledge all form a vital part of the organization's resources.

Firms engaged in alliances provide certain resources and competencies to the joint activity and extract resources of higher value (Boulton, Libert, & Samek, 2000; Dunning, 1980). Using the work of Dunning (1980), we

can define contributed resources as *ownership-specific*, those developed and owned by a company, and *location-specific*, those available to all firms but specific to a location. For our purposes, these knowledge resources would be defined as (1) *firm-specific* and (2) *market-specific* resources respectively. Through alliance activities, firms can develop two other forms of knowledge resources: (3) *resource-integration knowledge*, the competence in integrating contributed pools of knowledge resources; and (4) *partnering knowledge*, knowing how to effectively manage a partner relationship (Berdrow, 1997).

Through alliance activities, these four knowledge resources are contributed in the hopes of creating resources of higher value—strategic, financial, technological, operational, or other knowledge-based resources. Understanding how higher value knowledge resources can be achieved requires an understanding of where and how learning occurs within the alliance network.

Recent studies (Beamish & Berdrow, in press; Berdrow & Lane, 2003) suggest that while learning opportunities exist in international joint ventures (IJVs) learning itself was not a motivation nor did it directly improve the IJVs' performance. Yet, a small number of firms did gain new knowledge about managing an IJV, managing relationships, and insights about improving their business. In these instances, such learning did benefit overall firm performance, albeit more indirectly. This work also established that learning can occur within an alliance network through three processes: transfer, transformation, and harvesting. Based on these insights and principles of organizational learning, if learning is to be realized within an alliance network learning connections must be developed, managed, and utilized.

A Model of Alliance Learning

Two different arguments are presented when describing the importance of learning within and between organizations, external environmental factors, and internal operating factors. Schein (1993) cites two types of environmental factors that drive the need to develop learning capabilities: (1) the increasing rate of change of political, economic, and social factors influencing the business community and (2) the increasing degree of technological complexity. Senge (1990, p. 69) also cites the growing complexity within the world as a prime reason for the need to develop learning capabilities:

> Perhaps for the first time in history, humankind has the capacity to create far more information than anyone can absorb, to foster far greater interdepen-

> dency than anyone can manage, and to accelerate change far faster than anyone's ability to keep pace. Certainly the scale of complexity is without precedent.

It is difficult for organizations to keep up with this increasing complexity. Williams (1992) points out that the business environment has already shifted from an information age to an age of global realignment, yet organizations are still modeled after successful industrial era businesses.

International alliances are characterized by unique and multifaceted complexities. Joint resources and efforts cut across organizational and national boundaries in an attempt to achieve tangential objectives. The choice of partners, contractual agreements, and mutual management of alliance activities are all based on information provided by the partners and evidenced in their historic performance. Intentionally misrepresented or unintentionally misinterpreted, this information can be and often is, imperfect.

Learning is the process by which such imperfect information can be corrected and adjusted. In essence, the signals sent by imperfect information are corrected through interactions and joint activities (Spence, 2000; Stiglitz, 2000). Organization learning (OL) is a means of achieving and sustaining competitive advantage because it leads to organizational capabilities to detect and correct errors (Argyris 1992), innovativeness (Lewis & Scibold 1993; Nonaka 1994), and R&D activities and implementation of new technologies (Chew, Leonard-Barton, & Bohn 1991; Cohen & Levinthal 1990).

The process by which organizations learn is nebulous and difficult for academics and practitioners to operationalize. However, there are some generally accepted principles that have evolved from the OL field. Crossan, Lane, and White's (1999) 4i Model, for example, suggests that OL occurs at different levels in different ways. At an individual level, *intuiting*, which is based on experiences and mental models, allows an individual to recognize patterns or possibilities. *Interpreting* is an individual's explanation of his or her insights to others through language or visual aids. *Integrating* is the process of developing shared understanding among individuals through mutual adjustment, dialogue, and conflict resolution. Finally, *institutionalizing* routinizes the shared understanding into systems, structures, procedures, and strategy.

Most researchers recognize OL as a meta-competence. An underlying problem with this perspective, however, is bounding the limitless number of micro processes that can make up such meta-competence, making sure that all levels and possible interactions are considered. One approach to organizing these micro processes and differentiating between levels of analysis and organizational boundaries is the Learning Matrix (Berdrow,

Figure 6.1. Learning Matrix

1997). The model highlights the importance of learning as the detection and correction of errors, which in an interorganization learning context translates into the detection and correction of *differences*. This learning, if effective and appropriate, should enhance competitive advantage, or at least prevent its decline.

The matrix (see Figure 6.1) incorporates the dynamic interplay between levels within and across partners of an alliance. The vertical axis represents the originating level of the knowledge or learning processes, whether at the individual, group, or organization level. The horizontal axis represents the level that knowledge (or learning) impacts or gets transferred to. The diagonal of the matrix represents the micro learning processes at each level of analysis. The upper right-hand quadrant represents the transfer of learning, from the individual to group to organization level (the assimilation of learning). The lower left-hand quadrant represents the impact of the learning processes and artifacts on continued learning. The third dimension of the matrix represents the interaction of learning patterns between the organizations or between distinct groups in the alliance. The components of the model are described more fully in Table 6.1.

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Table 6.1. Explanation of Learning Matrix Terms

DEVELOPING LEARNING COMPETENCIES:

This is the process by which knowledge is developed, both about the operations of the organization, and about the process of learning itself. At each level of analysis, individual, group and organizational, there are different ways in which learning takes place. At an individual level, learning involves reflecting on what is known, gaining new knowledge and adapting mental models. At a group level, learning involves integrating knowledge and resolving conflicts in order to establish group knowledge. At an organizational level, it involves institutionalization of what has been learning forming strategies, structures, operating procedures, cultures and visions which act as a memory of what has been previously learned. While it is difficult to separate the levels of analysis, it is important to recognize that learning processes differ at each.

ASSIMILATION OF LEARNING:

This is the process by which knowledge is dispersed from an individual to group to organizational level of analysis. The knowledge that an individual has must get transferred to the groups in which they function and into the organization's memory. The knowledge that is generated by groups must get recorded into the organization's memory. If this assimilation does not occur, the knowledge does not get utilized.

IMPACT ON CONTINUED LEARNING:

This is the process by which existing knowledge impacts future learning processes. Learning processes are ongoing and iterative, so the understanding that has gone into developing a quality control system, for example, will affect future assessments of both that underlying understanding and the resulting system, because it will govern what gets noticed and flagged as a problem. The organizational memory, as well as the group knowledge, guides and defines future learning inputs, processes and outcomes at individual and group levels.

LEARNING ORIGIN:

In the development of learning competencies, this is the level at which learning processes occur. In the assimilation of learning and the impact on continued learning, the origin is the level at which the knowledge currently resides.

LEARNING TARGET:

This is the level to which knowledge is getting transferred, or the level that is being impacted by previously learned knowledge.

EXAMPLE:

An individual's knowledge (1,1) being recorded into the organization's memory, such as when a leader defines a new strategic direction, would be represented by square (1,3). The learning origin would be the individual – the leader, and the learning target would be the organization's memory – the strategy. The impact of that strategy (square 3,3) on an individual's decisions would be represented by square (3,1). The learning origin would be the organization's memory, and the learning target would be the individual.

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One of the unique contributions of this model is that it recognizes that organizations have unique patterns of learning based on their structure, culture, history, and other factors. When two organizations form a partnership, their unique learning patterns, as well as the points of contact, influence the learning between them. For example, two organizations may be linked via two key individuals with little system integration so that the learning is dependent on the individuals. In contrast, there may be extensive organization-level integration of systems with little individual or group-level interaction, in which case learning is dependent on the flow of knowledge through the systems. An example of the latter may be a distribution alliance where the local company distributes a product shipped to them by the foreign partner, with little interaction between individuals other than to resolve shipment problems.

Most researchers and practitioners focus on the transfer of existing resources from either parent organization to joint activities in the alliance (Berdrow, 1997). Yet, while transfer of appropriate resources is important, it is not sufficient for creating resources of higher value through the alliance activities.

In an international alliance, the most important points of integration occur at the group level of analysis. There are several reasons for this. For one, most knowledge resources that are contributed by either partner are in the form of individual-level (people) and organizational-level (existing technology, processes, and strategies) knowledge. Joint activities occur between people—at the group level—and it is at this level that existing knowledge resources are integrated to resolve differences. Once such differences are resolved, the resources can be applied effectively in the context of the alliance activity and, in some cases, can also be leveraged to offer new opportunities for the alliance. This process is referred to as *transformation* (Berdrow, 1997).

Second, knowledge resources are created within a context, that is, within organizational and national culture boundaries. Once these knowledge resources cross boundaries and are integrated with other knowledge resources a transformation must occur. The potential for knowledge transformation occurs any time individuals are placed in new situations or are presented with new ideas. Quinn (1992, p. 77) refers to this as "cross-functional serendipity" and claims that the "interaction between skilled people in different functional activities often develops unexpected new insights or solutions." However, Doz (1996, p. 76) emphasizes the importance of transforming contributed resources in order to succeed in collaborations since "alliances bring together firms with different technologies, markets and experiences, [firm's] organizational contexts are likely to reflect those differences, and make collaboration more difficult."

Transformation occurs through reflection and dialogue, each of which is composed of a number of subprocesses. Reflection occurs through articulation of knowledge and internalization of the articulated knowledge. This means, *describing what you understand* and *understanding what is described.* Dialogue is the interaction of dual processes: *extension*, spreading knowledge from one to many; and *appropriation*, the knowledge of many being passed to one (e.g., when a new employee learns about the organization's products and culture).

A third important, and as yet mostly neglected, learning process within alliances is *harvesting* (Berdrow, 1997). Harvesting is leveraging the learning achieved within the current alliance in other activities of the partnering firms. Harvesting created knowledge from the alliance that is used in other internal or partnership activities of the firm is an important added value that is often not realized. There are several reasons postulated for this, ranging from the inappropriate repatriation of management from international assignments and the "not invented here" syndrome, to the trade-off between exploration and exploitation (Crossan & Berdrow, in press).

Given these dynamics, the focus of the rest of the chapter is specifically placed on the group-level interactions that enhance and accelerate these transformation processes. This emphasis was chosen for two reasons. First, the transformation of existing knowledge resources contributes directly to overcoming unforeseen problems, finding new opportunities, and minimizing start-up time and costs—in essence, enhancing alliance performance. Second, transformation requires group-level interactions, especially in alliances that cross cultural boundaries. Drawing on a set of in-depth field studies gathered from nine international joint ventures in Mexico and Estonia, the next section describes specific consulting interventions that can facilitate these group-level interactions within the alliance network.

LEARNING CONNECTIONS

Berdrow and Lane (2003) identified six factors that differentiate unsuccessful from successful learning in IJVs: mindset, controls, strategic integration, training and development, resource contributions, and integration and relationship development. Based on their research, the most successful partnerships intentionally created points of contact within the alliance, contacts through which knowledge could be shared, developed, and applied. These points of contact were between individuals with specific interactive roles, either: one-to-one, such as designated counterpart relationships; one-to-many, as a liaison mandated with facilitating learning and knowledge sharing within the alliance; or many-to-one, as in training and

development initiatives. The success of these points of contact depend very much on the nature of the relationship between the individuals, as well as the opinions that these individuals hold of each other and of the partnering companies.

One-to-one Learning Connections

Individual counterparts within the alliance network can be teamed up to manage issues and to take joint responsibility for decisions based on their combined knowledge and expertise. As an example, in one IJV, a team of Italian engineers and technicians worked on site in Mexico for 10 years with their JV counterparts to effectively set up and transfer a particular technology. This interaction created a level of competence among the Mexicans that allowed them to work independently, surpassing initial expectations of the JV performance. In another example, an IJV in Estonia matched its employees with counterparts in the U.S. parent company so the Estonians could learn how to carry out their specific functional tasks according to global standards of practice, while meeting the challenges of their local conditions. The U.S. and Estonian partners had constant and open access through email, telephone, and fax. The teams of counterparts would also visit each other's sites, in either the United States or Estonia, for extended periods of up to several months.

Another example of learning through counterparts is provided by SEED,[1] a maquiladora operation in Tijuana, Mexico. Owned by an American company, SEED employed 650 local employees and produced circuit breakers, load centers, and low voltage transformers. When a new line was started in Tijuana, the U.S. plant sent unionized assemblers to Mexico. Quite surprisingly, given the potential threat of job loss for these American assemblers, they made friends with the technicians in Mexico. Typically, after working in the plant all day, they would go out at night, and the next day describe their experiences to their Mexican counterparts. Soon the Americans invited the Mexicans to join them as their guests, and before long the Mexicans invited their new friends to their family homes for dinner. Gradually, a lasting relationship was established. This interaction created an opening, an opportunity, for asking questions about the processes, technologies, and problems experienced on the new line. The resultant social bond allowed for work issues to be discussed openly and honestly, with a collaborative rather than competitive spirit.

The success of the maquiladora operation was reflected in significantly increased sales, which provided more work for all the plants—American and Mexican. Some technical developments achieved in Tijuana had filtered

back to the U.S. operations, particularly machinery modifications recommended by Mexican technicians, and were incorporated in the U.S. plants.

One of the key issues in the success of these counterpart relations was the mindset of the individuals that allowed them to ask questions, admit mistakes, and learn from their alliance partners. Within this context, mindset refers to "the set of attitudes, thoughts and feelings that influence decisions and actions" (Berdrow & Lane, 2003, p. 7). It was important to recognize that regardless of background, experience, or education, in a complex environment someone familiar with the local conditions will have some knowledge or understanding that you do not have.

Another issue was language. For counterparts to work together successfully there had to be a common language from which understanding of new things could be built. Typically, the common language would be technical—for example, an American chemical engineer describing a cooling system to an Estonian engineer would not have to explain basic chemical processes. However, even a technical language base could have its differences. For example, American accounting practices are very difficult to explain to a Russian accountant in northern Estonia who has never seen nor had to account for purchasing or selling costs until the Baltic State gained independence from Russian rule and control.

One-to-many Learning Connections

An effective "learning" initiative, which directly facilitates improved performance in an alliance, is the liaison role. This function is especially important when there is a need to maintain and develop complex partner relationships, while minimizing uninformed decisions and biased activities.

The liaison role was used in Tasmel, Mexico's leading manufacturer of finished automotive stampings and assemblies. As a joint venture between a Mexican conglomerate and an American automotive products company, Tasmel operates seven plants in Mexico. It had successfully survived a significant environmental shift when Mexico opened its markets to foreign influence. The partnership was so successful that its partners developed a new company in Brazil, a joint venture between the IJV Tasmel and a Brazilian partner that would manufacture and supply automotive components to local automotive plants.

Both partners of Tasmel had the intent to learn through the original partnership: the American partner sought market knowledge and the Mexican partner sought technological knowledge. The U.S. parent contributed technological capabilities and the skill in developing that competence. This dual contribution meant the joint venture could acquire the technology resource and, more importantly, acquire the skill to build on that

resource in developing new technological capabilities. It also contributed an understanding of the importance of functional integration within the organization to achieve competitive advantage and sustainability. The Mexican JV originally functioned in a "silo" fashion, with engineers producing a technical product and marketing looking for a customer-oriented product. By working with the American parent, and having to service American customers, the JV learned to integrate its engineering and sales people so that it could design products that the customer actually wanted rather than simply those it was able to produce.

The Mexican parent contributed knowledge of the local market, stable labor relations, an understanding of the government regulations, partnering and managerial competence, and the resources of a large diversified company. It also contributed an understanding of how to function in volatile markets with scarce resources, a survival component that the U.S. parent would benefit from as its own environment became more dynamic.

Initially, the American parent maintained a director with technological and management expertise at the JV site in Mexico with the intent of ensuring that quality standards were being met and that reporting standards were being maintained. As the joint venture became capable of consistently meeting the standards expected by the American parent, the director was essentially replaced by an extensive training program. Mexican engineers now spent time at the American sites learning new designs and processes. This training sometimes required up to two years at the American site. When the engineers returned, they integrated that knowledge into the JV's operations, setting up new systems and teaching other engineers what they had learned.

A complex relationship developed between the U.S. parent and the JV wherein they were not only partners, but also customers of each other and suppliers to each other's customers. Despite the competitive nature of this situation they were able to operate in a mutually beneficial manner and did not engage in unfair competition.

As the relationship became more complex, a liaison position was formed to deal with the daily issues that might arise. This liaison person had essentially become the gatekeeper and ambassador of the relationship, playing an integrating and facilitating role rather than a monitoring role. This person was strategically placed close to the U.S. partner and American customers, but was chosen from within the Mexican parent or the joint venture based on experience and competence.

The liaison's mandate was to maintain and improve relations between the partners and with customers, ensuring fairness for all parties and resolving any problems that might arise. It is important for such liaisons to have the power, authority, and support to carry out this mandate, with access to all levels of the organizations. In the Tasmel JV, the liaison was

aware of events in all three organizations and was kept up-to-date with advancements in the field. This individual also had both the personal characteristics and technical knowledge to get things done, either alone or through others. Since this person had direct access to customers and their proprietary knowledge, it was also critical to be extremely trustworthy in the eyes of all parties.

Such relationship-based trust is important, as are the interactions of key players, both at executive and operations levels. However, each person is still involved in their own companies and it is not always possible to put all one's attention on the relationship; other activities and responsibilities still preside. Thus, creating a dedicated liaison role, in essence placing responsibility for the relationship in the hands of a specific individual, helps to ensure that the relationship will not suffer because of other priorities. Individuals function within their own context, which does not always center in the partnership. Liaisons can ensure a balance between individual and joint priorities. This role also places difficult decisions in the hands of a neutral party, someone who is respected by all and has allegiance to the partnership rather than a particular member.

The learning outcomes for the partners and Tasmel (the IJV) were significant. Both the IJV and the Mexican parent had acquired design and technological knowledge from the American parent, with the IJV having learned enough about the design technology to be able to develop and patent its own designs. They both also learned to integrate different function areas of the organization to ensure complete customer satisfaction. The American parent learned how to function in uncertain foreign markets, a lesson it could carry forward into other new markets.

Many-to-one Learning Connections

Porter (1994, p. 217) highlights the need for extensive, interactive training when transferring new technologies:

> The element of skill is often so crucial, and so difficult to convey in words, that the transmission of instruments or techniques from one site to another is almost impossible. Impossible, that is, using information alone; a long visit and much practice—a kind of apprenticeship—will more likely enable the student or entrepreneur to gain sufficient mastery of a set of laboratory or industrial practices to recreate them at another site ... Information, in a sense, is lacking, because the written word is powerless unless reinforced by personal experience ... Making knowledge ... involves people as well as instruments. And the involvement of people necessarily brings in the crucial ingredient of trust.

A common theme among successful partnerships is the ongoing training and development of employees and managers (Berdrow, 1997). While different methods are used, common elements include: incorporation of basic, theoretical, and practical training; repeated and ongoing delivery of the training; lengthy sojourns integrating the learners with the experts; and incorporation of both experiential training and practice.

While the training itself may be focused on technical aspects of the operations and could arguably be applicable only in an environment where basic knowledge cannot be assumed, several arguments can be made for the universality of this training theme. First, while a workforce may be well educated, the education may not always be with the latest technologies. Second, training often involves a philosophical element as well as a practical or technological element. Finally, training can maintain a mindset of learning and inquiry among its employees. It may set the ground rules for interactive problem solving and innovation.

In one joint venture we studied, ongoing learning and personal development were provided for all employees through a "pay for knowledge" promotional system that allowed them to improve their basic skills and develop competencies necessary for advancement within the organization. Skilled tradespeople were hired young, with good educational backgrounds, and then provided ongoing training and experience to encourage promotion to management levels within the organization. Over time, all employees were acculturated to the organization's philosophy and were expected to keep up-to-date with knowledge advancements in their fields of expertise. A contribution-based bonus system encouraged employees to take personal interest and pride in the organization, maximizing their contribution to it as a matter of personal achievement.

Outcomes of Learning Connections

The cases described above highlight the use of learning connections to foster adaptability and responsiveness through effective learning, decision making, and problem solving. The most significant outcomes were the IJV's ability to surpass the combined knowledge contributions of the parent firms and create new value through complementary activities. The most successful partnerships provided ongoing benefits in new operations or markets not originally anticipated. Those benefits stemmed from having developed successful working relationships that supported learning. The conclusion drawn is that effective learning leads to the ability to avoid or overcome relationship difficulties and the ability to avoid or overcome market, operational and economic difficulties (Berdrow, 1997).

Creating Learning Connections

There are a number of interventions that consultants can use to create such learning connections in international alliances. Effective design, management, and application of these learning connections can enhance performance within the alliance, taking strategic advantage of learning opportunities rather than letting them happen serendipitously. Five steps are recommended in the creation of these learning connections: (1) identifying key objectives; (2) mapping existing knowledge resources; (3) mapping network connection points; (4) facilitating learning connections; and (5) monitoring learning outcomes.

Identifying Key Objectives

Every alliance partner has unique objectives, reasons for having formed the partnership and expectations of its outcomes. These objectives are not necessarily similar between partners. It is important to understand these objectives so that all activities of the alliance—learning or otherwise—can be directed toward meeting those goals. While learning may not be a specific objective of the alliance, it can still be an important outcome, one that provides unique future opportunities.

Learning outcomes, as they align with the alliance objectives, also need to be defined. Guiding questions include:

- What is it that we need to be able to do within this alliance?
- What could we learn that we do not already know?
- How might we leverage the things we learn in this alliance in other activities?

Mapping Existing Knowledge Resources

When an alliance is established, partners typically engage in resource-planning activities. As part of this planning, they consider the resources that the alliance activity will require given the desired outcomes. They will offer appropriate resources that each has available to contribute to this joint activity. Finally, they consider resource gaps between supply and demand, and decide where these might be sourced. In engaging in these resource-planning efforts, knowledge and competence resources must be figured into the equation.

Among the types of questions that should be raised are:

- What experts does each partner employ?
- What core capabilities have each developed that can be contributed to the alliance without damaging competitive advantage?
- What processes for developing expertise exist within the organizations?
- Who has had experience in this activity or location before?
- Who can be called on to resolve problems if needed?

Mapping Network Connection Points

An alliance agreement often includes reporting structures, authority and responsibility, resource contributions and associated costs, and performance measures. The agreement will clearly define activities within the alliance and expectations of each alliance partner. A component of this agreement should reflect the expected and allowable connection points within the alliance network. Using the Learning Matrix shown in Figure 6.1, it is possible to map out the connection points and knowledge sources within the alliance network. The learning connections should be defined by type—one-to-one, one-to-many, and many-to-one—given the objectives and needs of the alliance.

Facilitating Learning Connections

Learning connections require resources. A potential problem is that the return on investment of these resources may not be immediately quantifiable or even recognizable given that knowledge outcomes are often intangible. A result, for example, may be a reduction in poor performance rather than an improvement of good performance. It is more difficult to determine whether a disaster was avoided than it is to determine if a new product has been successfully launched.

The resources required by learning connections include time, communication technologies, cost of travel, facilities for training, additional positions to manage relations, and learning processes. It is much less costly to send a manual with a new piece of machinery for the local manager to learn on the job than it is to send that person to a facility somewhere else in the world for training. The outcomes of these two choices, however, are as dissimilar as the cost of each, although obviously in the opposite direction. Time must be allowed for unforeseen problems and situations. If either partner knew how to do everything already, the alliance would not be needed. Schedules must be flexible and allow for learning and problem resolution as operations are being set up.

Beyond the technical dimensions of alliance knowledge an important but often overlooked factor is partnering knowledge—knowing how to effectively manage a partner relationship. This orientation includes cultural training, communication skills, global strategies, and interpersonal relations.

Monitoring Learning Outcomes

Learning is a difficult management process to justify because, in many instances, the outcomes are not readily measurable. Moreover, the interventions that caused the learning and/or the time periods in which the learning occurred may not be directly associated with these outcomes. Cost- benefit analyses on learning processes are impossible. However, prox-

ies can be measured that highlight the benefits of these processes. For example, a consistent reduction in set-up time over different international operations with local alliance partners is a proxy measure that can be matched with intentionally designed learning connections within those alliance networks. Innovative responses to an extraneous environmental shock by an alliance team is another proxy of effective learning.

A very effective but little used tool is expatriate repatriation. Expatriates spend enormous time, energy, and personal resources (e.g., psychic expense of family tradeoffs) in making foreign operations work. Research has shown that, in many instances, this commitment is not compensated with professional growth within the company, but rather fulfills a personal sense of satisfaction, challenge, and accomplishment. Companies may send that individual on to another assignment, or bring them back home. Yet, all too often no process is put in place to harvest what these expatriates have learned or to leverage their knowledge in new environments. To effectively harvest their experiences and learning, their relocation should be postponed so that they can overlap with the new person taking their position. This overlap time allows for transfer of learning from one expatriate to another. A deliberate process of recording the "story" of the expatriate's experience can build a useful archive for training new international recruits.

This type of exchange is another perfect opportunity for a liaison role; a global expatriate liaison could manage the harvesting of knowledge resources developed by managers in foreign assignments. That individual would be responsible for finding out what the people working in these alliances have learned. Two key questions, for example, could include: "What do they know that others could use?" and "What skills have they acquired that would help in other operations?"

Within a specific alliance, monitoring the learning outcomes can add a new dimension to performance assessments. For instance, if the original objectives of the alliance included learning or knowledge transfer, it is especially important to assess whether these goals were actually attained. Within the partnership itself, this type of assessment can also enhance a sense of achievement. For each partner individually, it identifies knowledge resources that can be leveraged elsewhere. Most importantly, it highlights learning outcomes and allows for reflection on how that learning occurred, improving the "management" of knowledge resources in future collaborative and international activities.

INTERVENING TO ENHANCE LEARNING

From a consulting perspective, one of the most important issues to be aware of when intervening in international partnerships is establishing and sustaining trust. This emphasis concerns not only the level and focus of trust within the partnership, but between the alliance managers and the consultant. When alliances are formed, complex relationship development and negotiations define what resources are to be shared within the partnership and how partners will be compensated for those resources. As suggested in this chapter, however, knowledge resources are difficult to identify, quantify and track. Thus, the level of trust, both between the partnering companies and the individuals directly involved in the partnership, will determine the extent to which knowledge resources are protected and horded versus shared and enhanced. For a consultant to truly help the organizations enhance learning and knowledge management, they must be aware of the level of "learning trust" within the partnership and honor the degree of knowledge protection that partners have built into the alliance activities.

Consultants must also be cognizant of learning barriers that partners have put in place that may or may not be apparent to all players in the alliance. If the alliance is formed with clear learning and knowledge sharing objectives, any barriers the consultant may uncover will have to be dealt with carefully. The most effective approach is to raise the issue with the offending partner or manager, within the context of the alliance objectives, rather than blow the whistle on them openly. While this latter tactic may ultimately become necessary, in most instances alerting the partner to the issue and working with them to clarify expectations are sufficient for change.

If learning connections such as knowledge liaisons are to work, the right people have to be put into these positions. Quite often individuals are chosen for these roles for reasons other than their "knowledge management" skills, for example, because of their technical knowledge or their availability at the time. Qualities such as diplomacy, communication capabilities, trustworthiness (perceived and real), language skills, and ability to manage complex tasks are important but often overlooked. The consultant should alert the organization to issues surrounding person-role fit, especially in the context of the demands of the liaison position, the context of the alliance activities, and the dynamics of the alliance relationship.

On a final note, the consultant must also be able to assess the genuine learning motivations and objectives of all players in the alliance. Alliances, while they provide learning opportunities, are not always formed to leverage those opportunities. Thus, it is also important for consultants to be able to assess when learning is appropriate and desired, and when it is

not—and, within this context, to work with the client organizations to fulfill the objectives of the partnership.

NOTE

1. All company names have been disguised.

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CHAPTER 7

DYNAMIC COMPETITION AND DEVELOPMENT OF NEW COMPETENCIES

The Case of the Internet Consulting Industry[1]

Valerie Claude-Gaudillat and Bertrand V. Quelin

INTRODUCTION

Business history is rich in innovations introduced by new players, innovations that often revolutionize existing industries and even create new ones. Within the context of this innovative environment, established firms are often challenged by these entrants to develop new strategies to respond to their innovations (Christensen, 1997; Nelson & Winter, 1982; Rosenberg, 1976; Rosenbloom, 2000; Tushman & Anderson, 1986). Established firms, willing to compete with new players who are at the origin of creative destruction (Schumpeter, 1934), have no choice but to access new competencies. Indeed, even if some resource leveraging is possible (Prahalad & Hamel, 1990; Sanchez, Heene, & Thomas, 1996), existing firms still have to obtain new resources and combine them with their existing resource base (McGrath, MacMillan, & Venkataram, 1995). While new actors also need to

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strengthen their competence base, in many cases their efforts are limited by resource constraints. Thus, both new firms and established companies are involved in a race to access key competencies under the pressure to respond to customers and marketplace demands.

Firms confronted with the challenge of developing new competencies are faced with two important strategic decisions: (1) which competencies to access; and (2) how to access them. A central characteristic of this situation is the prevailing uncertainty about the evolution of the market segment(s) targeted. Despite the amount of recent work dedicated to the new economy and wide acknowledgment that little is known about how firms really manage competencies, with few exceptions (Hennart & Park, 1993; Inkpen, 2000) little effort has been made to understand the interactions between the need for new competencies and the modes of governance adopted by firms to access these competencies. Consequently, little is known about which factors play a significant role in these dynamics.

Our objective in this chapter is to develop a framework focused on developing a better understanding of how (1) firms face the coming of an emerging industry and (2) access the competencies necessary for success. As part of this analysis, we will refer to two theoretical perspectives: the Resource-Based View (RBV) of the firm and Transaction Cost Economics (TCE). While the RBV and TCE frameworks provide the theoretical background for our research, as the discussion will indicate, these perspectives also have weaknesses. The theoretical framework links the characterization of the competencies possessed by firms and the modes of governance chosen for accessing new competencies under the specific conditions of an emerging industry. Within this context, an emerging industry is defined by four criteria: (1) its creation is related to the introduction of a disruptive innovation; (2) the innovation requires the development of new competencies (see Nelson & Winter, 1982); (3) the industry corresponds to the initial stage of the life cycle; and (4) it is characterized by a high level of uncertainty (Balakrishnan & Koza, 1993). The firm is portrayed as a governance structure, where the governance structure involves coordinating existing resources, creating new resources, and protecting the value of these resources (Karim & Mitchell, 2000).

The chapter initially reviews the RBV and TCE literature, combining these two perspectives into an integrative framework. Based on a qualitative case study of the e-consulting industry, the exploratory analysis applies this framework, drawing out the implications for consulting and strategic management.

FACING THE UNCERTAINTY: THE RIGHT CHOICE OF GOVERNANCE

The strategic management literature defines three generic modes of governance that enable firms to access new competencies: (1) developing these competencies internally; (2) obtaining the competencies through partnerships with other firms; and (3) acquiring them through market transactions. Choosing between these modes is not a neutral decision. The future market position of the firm and its performance will be affected by the choices made (Conner & Prahalad, 1996).

A major difficulty for firms is that these choices are made under conditions marked by uncertainty. As the level of demand for different products or services can vary significantly (Knight, 1965), firms have no guarantee that the market will develop according to their expectations. While they could be tempted to postpone the investments required until much of the market uncertainty is resolved, in a dynamic environment characterized by limited windows of opportunity (Abell, 1978) firms would face the risk of not having the right competence at the right time. As Barney (1999, p. 137) has suggested, "Firms that fail to bring the right business activities within their boundaries risk losing their competitive advantage and becoming 'hollow corporations.'" In the context of an emerging industry, accessing new competencies is therefore a strategic priority that will have direct implications for the firm's boundaries and performance.

Organizational Forms: A Transaction Cost Economics Perspective

A fundamental argument of transaction cost economics (TCE) is that the boundaries of the firm are determined by the trade off between the transaction costs of using the market and the organizational costs of using hierarchies (Coase, 1937; Williamson, 1975, 1985, 1996). Firms that fail to organize transactions in an economizing fashion will suffer poor performance (Williamson, 1991, 1999). TCE predicts that industries with similar institutional environments and, hence, similar transaction attributes are dominated by organizations with similar governance modes. This similarity has been empirically demonstrated in several industries (Anderson & Schmittlein, 1984; Armour & Teece, 1978; Walker & Poppo, 1991), including the petroleum industry and the electronic components industry. Some studies, however, have also exhibited opposite results (Hennart & Park, 1993).

Organizational Forms and Uncertainty

Organizational forms differ in their ability to eliminate sources of uncertainty (Langlois, 1998). When the potential for opportunism is high and coordinated investments and realignments are made necessary by frequent and consequential changes, the hierarchy is superior to both market and hybrid modes (Williamson, 1991). By contrast, market transactions are adequate when the risk for opportunism is low and market contracts are easily written, governed, and enforced (Grossman & Hart, 1986; Williamson, 1975, 1979).

While organizing transactions through hybrid forms alleviates some of the bureaucratic and shirking costs associated with the hierarchical mode, this approach is considered as the less viable one since hybrid adaptations cannot be made unilaterally or by fiat (Williamson, 1991, p. 291). Weak regimes of appropriability (Teece, 1986) increase the cost of hybrid contracting as compared with hierarchy (Williamson, 1991). Nevertheless, alliances are a way to share risk, while diminishing uncertainty and increasing reversibility (Balakrishnan & Wernerfelt, 1986; Hagedoorn, 1993; Parkhe, 1993).

TCE Limitations: Temporal Accumulation of Specific Assets and Optional Choices

A central postulate of the TCE is that no specific investments have been made prior to the decision regarding the mode of governance (Williamson, 1999). The absence of previous investment allows firms to make rational choices based on the comparison of the costs associated with each mode. However, firm competencies and underlying organizational routines should influence firms' choices (Langlois, 1998; Penrose, 1959). Past relationships have recently been introduced in the TCE framework in order to show how previous choices can constrain subsequent governance decisions (Argyres & Liebeskind, 1999).

In the TCE framework, the modes of governance are viewed as discrete choices, namely there is one best mode in a particular setting. But empirical evidence shows that firms can make multimodal choices to access a competence, that is, in the TCE vocabulary, a specific type of asset. Williamson (1991) argues that choices made by firms are motivated by economizing the cost of producing transactions, and that economizing should always prevail on strategizing. If firms were to make strictly cost-based decisions, acquisitions, an expensive mode of accessing new competencies (Quelin, 1997), and alliances, which are subject to contractual hazards (Oxley, 1997), would not be a desired strategy. TCE has difficulties explaining why many hybrid organizations are characterized by high degrees of uncertainty, frequency, and asset specificity without leading to integration. Indeed, high degrees of frequency and mutual dependency tend to sup-

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port, rather than hinder, ongoing cooperation across firms (Holmstrom & Roberts, 1998).

Overall, the competencies of a firm or the competencies of its potential partners are not considered by the TCE when deciding which economic exchanges to include (or not include) within a firm's boundary (Barney, 1999). Williamson (1999), acknowledging this limit, suggests that learning implications should be included in the TCE framework.

Accumulation of Competencies and Strategic Choices: A Resource-Based View Perspective

The RBV conceptualizes the firm as a bundle of resources. Competitive advantage stems from superior rents drawn from imperfectly tradable assets (Amit & Shoemaker, 1993; Barney, 1986, 1991; Dierickx & Cool, 1989; Teece, Pisano, & Shuen, 1997; Wernerfelt, 1984). Due to the imperfection of asset markets (Barney, 1986), competencies have to be accumulated internally (Dierickx & Cool, 1989). Even if developing competencies internally can lead to core rigidities (Leonard-Barton, 1992), the future of the firm is reinforced through its own development of its resources (Nelson & Winter, 1982; Teece et. al, 1997). Furthermore, the internal accumulation is the most likely source of imperfectly substitutable and imitable assets (Markides & Williamson, 1994). This emphasis on internal development is rooted in Penrose's theory of the growth of the firm (1959), which states that excess resources have to be used within the firm. Choosing to develop new competencies internally, however, can be costly for reasons ranging from historical context, social complexity, and path dependence to causal ambiguity (Barney, 1999).

Competencies are defined as a firm's capacity to deploy resources, usually in combination, using organizational processes, to affect a desired end. They are information based, tangible or intangible processes that are firm specific and are developed over time through complex interactions among the firm's resources (Amit & Shoemaker, 1993). To further define these competencies, we follow Barney's (1986) definition and distinguish four characteristics: (1) they are rare; (2) their transferability is limited or even uncertain (Williamson, 1985); (3) they cannot be easily imitated (Lippman & Rumelt, 1982); and (4) their appropriability is less linked to the domain of property rights than to a long organizational learning process (Barney, 1986; Dierickx & Cool, 1989; Teece, 1986).

RBV Limitations: Governance, Rigidities and Path Dependence

The RBV literature insists on the uniqueness of organizational competencies and recommends developing and protecting them within the

boundaries of the firm. The question of modes of governance is not specifically addressed, at least under certain circumstances (e.g., when the need to learn about tacit resources and capabilities is low) (Barney & Lee, 2000). Several authors have nevertheless questioned this point, engaging in a comparative analysis of the RBV and TCE frameworks (Conner 1991; Conner & Prahalad, 1996; Kogut & Zander, 1992; Madhok, 1996, 1997; Poppo & Zenger, 1998; Roberston & Langlois, 1995). Conner and Prahalad (1996), for example, argue that the development of tacit and taken-for-granted resources and capabilities is facilitated through hierarchical forms of governance. Dosi and Teece (1998) and Barney (1999) have also suggested that capabilities play a role in the definition of a firm's boundaries, calling for further research to be dedicated to this point.

Some scholars show that established firms have specific difficulties in developing new competencies. First, the competitive pressure to succeed in leveraging current competencies may overwhelm the need for management attention to building new competencies on which a firm's future depends (Sanchez & Heene, 1997). Secondly, established firms develop distinctive organizational processes that lead to path-dependent strategies and cannot support new technologies despite similarities with old ones (Teece et. al, 1997).

Alliances are mostly portrayed as a way to access a partner's capabilities (Grant, 1996; Hamel, 1991; Hamel, Doz, & Prahalad, 1989; Kogut, 1988). While capabilities also play a role in the selection of an alliance's partner (Mowery, Oxley, & Silverman, 1998), market transactions for the acquisition of competencies are characterized by a high rate of failure and are difficult to organize (Pisano, 1990; Teece, 1982). By minimizing time compression diseconomies (Dierickx & Cool, 1989) that constrain the content and speed at which people learn, acquisitions can help reconfigure resources and may be preferable to internal development (Karim & Mitchell, 2000). However, the need to integrate targeted competencies with existing ones (Capron, 1999)—an often lengthy and risky process—is certainly a drawback of acquisitions (Galunic & Rodan, 1998; Quelin, 1997).

In the RBV framework, resources are mainly exploited through expansion and market arrangements have mostly been underemphasized (Silverman, 1999). Using market or intermediate forms of governance can nevertheless become an attractive alternative, especially when developing competencies internally and acquiring a firm already possessing these competencies are costly options (Barney, 1999). To sum up the RBV logic, therefore, internal development should be the favored mode. But empirical evidence shows that firms rely also on other modes to access new competencies (e.g., biotech, cellphone, and software industries). This evidence tends to contradict the RBV assumption that any resource, valuable, rare, and inimitable enough to generate sustainable rents is too assets specific to

be contracted out (Silverman, 1999). This discussion suggests that the RBV perspective is limited in explaining governance choices when new competencies are needed since the criteria underlying these governance choices are not detailed.

Understanding Dynamic Competition in an Emerging Industry: Complementarity between RBV and TCE

Two positions prevail in RBV and TCE theory. One stream considers the RBV and TCE as mainly independent theories (Conner, 1991; Conner & Prahalad, 1996; Kogut & Zander, 1992), while a second stream looks at the two approaches as complementary (Dosi & Teece, 1992; Silverman, 1999). Williamson (1999), for example, suggests that one way of advancing the TCE perspective is to push beyond the generic level at which it operates to consider resource capability endowments. As he suggests, "albeit underdeveloped, the relation between governance and competence is beginning to take shape and would appear to hold promise" (p. 1098). The relevant question is: "How should firm A—which has pre-existing strengths and weaknesses (core competencies and disabilities)—organize transaction X?" (p. 1103).

While both the RBV and TCE models provide fruitful insights to explore our research question, neither provides a sufficient theoretical background. Our argument is that choices made by firms in terms of governance are defined as a function of both the characteristics of the competencies possessed and the characteristics of the governance modes. Rooted in the "complementary" view, the next section develops a theoretical framework linking the characterization of the competence base possessed by firms and the modes of governance chosen for accessing new competencies.

ACCESSING NEW COMPETENCIES BY FACING UNCERTAINTY: A THEORETICAL FRAMEWORK

Facing an emerging industry, firms have to evaluate the efficiency of each governance mode through appropriate criteria, examining the interaction between the competence base and the characteristics of the governance modes. Within this context, the status of the competence base is defined along four dimensions: attractiveness, diversity, appropriability, and relatedness.

Attractiveness of the Competence Base

Building on Abernathy and Clark (1985), Tushman and Anderson (1986) introduced the notions of "competence-destroying" and "competence-enhancing" technologies. Competence-destroying technological discontinuities are more likely to be introduced by new actors in contrast to competence-enhancing technological discontinuities, which are mostly introduced by incumbents. Reacting to competence-destroying discontinuities is difficult for established firms (Christensen & Rosenbloom, 1995; Cooper & Schendel, 1976; Henderson & Clark, 1990; Tushman & Anderson, 1986). An often cited reason is that core competencies can become "core rigidities," making the adaptation process particularly difficult (Leonard-Barton, 1982).

Even if the competence-destroying/competence-enhancing duality is widely used, scholars have highlighted its lack of universality. Henderson and Clark (1990) and Henderson and Cockburn (1994) prefer to reason in terms of architectural innovation versus component innovation to explain why incumbents face difficulties reacting to innovative offers. Looking at an industry several years after its consolidation allows an analysis of which competencies have been destroyed or not. During the emerging phase of an industry, in contrast, it is hard to tell or predict which competencies will be destroyed or enhanced (Cooper & Smith, 1992). The value of competencies comes from their fit with market expectations (Amit & Shoemaker, 1993), and the relative value of resources can be affected by market changes (Hamel & Prahalad, 1994; Miller & Shamsie, 1996). So the innovation effect on a firm's competence base is unlikely to fall in any of these categories.

Based on this reasoning, we propose to consider the impact of innovation on competencies as a *continuum* between destroying and leveraging, and to describe the status of the competence base in terms of its attractiveness, namely the fit between firm's existing competencies and its external environment. An attractive competence base means that a firm can leverage[2] some of its existing competencies and can be interpreted as the ability to run adequate organizational routines (Hamel & Prahalad, 1994; Nelson & Winter, 1982) in new market conditions. These routines should act as a positive factor for the development of new competencies (Leonard-Barton, 1992) within the firm. Yet, even if some leveraging is possible, we assume that new competencies have to be acquired, that is, some competencies building[3] has to be achieved.

Firms with an attractive competence base could consider waiting, until most of the market uncertainty is resolved, to start developing new competencies. Since the potential competitive advantage can rapidly be dissipated if the investments necessary to make the competence base evolve are not made on time, a major risk would be missing windows of opportunity

(Abell, 1978). Consequently, we predict that firms with an attractive competence base will weigh the transaction costs of acquiring competencies through market transactions with the opportunity cost of not advancing their strategic advantage (Barney, 2001) and taking the risk of being bypassed by competitors. We therefore hypothesize that firms with an attractive competence base should tend to rely on the three modes of governance to develop new competencies.

Proposition 1a: *Facing an emerging industry, the more attractive its competence base, the more a firm will favor all three modes of governance to develop new competencies.*

Low attractive competencies, in contrast, can be interpreted as a negative indicator of the competitive position of the firm. In essence, the competencies of the firm are not valued in new market conditions, and the firm faces specialized organizational routines that can become core rigidities for the internal development of new competencies (Leonard-Barton, 1992). In this case, choices for developing new competencies are limited. Indeed, since internal development is complex and lengthy, a firm with low attractive competencies faces the risk of missing the windows of opportunity (Abell, 1978). Since the number of potential partners willing to partner with a firm is a function of the firm's attractiveness (Ahuja, 2000), firms with a "low attractive" competence base should not be regarded as particularly attractive by other firms.

Even if acquisitions imply both transaction costs and bureaucratic costs, they should nevertheless retain the favors of firms having a low attractive competence base. When deciding to develop new competencies, firms with a low attractive competence base should turn to acquisitions, accepting to pay premium prices.

Proposition 1b: *Facing an emerging industry, the less attractive its competence base, the more a firm will favor the acquisition mode to develop new competencies.*

Diversity of the Competence Base

To complete our analysis, we introduce a second dimension to qualify the status of the competence base—diversity. A diverse competence base means that a firm possesses a range of functional competencies, as defined by Henderson and Clark (1994). Firms with a large spectrum of functional competencies are very likely to be diversified firms having developed these competencies through a variety of means. Indeed, new skills are frequently accessed through alliances (Baum, Calabrese, & Silverman, 2000; Hennart, 1988; Kogut, 1988; Mothe & Quelin, 2001) and acquisitions (Karim &

Mitchell, 2000). Diverse functional competencies can therefore be interpreted as an indicator that different modes of governance have been used in the past to develop competencies in new arenas.

The impact of the firm's history in terms of governance mode can be twofold. Prior contractual commitments made by a firm can limit its ability to differentiate or change its governance arrangement in the future (Argyres & Liebeskind, 1999). This can limit the firm's ability to use an alternate mode that could nevertheless be more efficient in new market conditions. In this case, history plays a "negative" role by restricting the choices of the firm.

Previous choices, however, can also have a positive effect by lowering the coordination costs associated with each mode of governance. Since choices in governance modes exhibit path-dependence characteristics (Argyres & Liebeskind, 1999), firms should refer to governance modes they have used in the past. For example, a firm familiar with partnerships or acquisitions will face lower up-front costs if it decides to use these modes again. Pisano (1990) argues that routines underlying a historical pattern of R&D procurement will lead to internalization of the R&D, even in the case of technology changes. When developing new competencies, choices made by firms should therefore not be disconnected from the past (Langlois, 1998).

Firms disposed with a variety of competencies are more likely to have developed a large set of organizational routines and this portfolio of routines should facilitate the development of new competencies. In turn, a diverse competence base should lead firms to rely on each mode of governance to develop new competencies.

Proposition 2a: *Facing an emerging industry, the more diverse its competence base, the more a firm will use all three modes of governance to develop new competencies.*

Firms with a low-diverse competence base, in contrast, would tend to be more specialized organizations, relying on internal development to develop their existing competencies. Again, these firms should utilize the same mode of governance (Argyres & Liebeskind, 1999) with respect to developing new competencies, favoring the internal mode.

Proposition 2b: *Facing an emerging industry, the less diverse its competence base, the more a firm will favor the internal mode to develop new competencies.*

Appropriability Hazards

Appropriability hazards, a central issue in the economics of innovation about the ability to capture value (Arrow, 1962; Pisano, 1990; Schumpeter, 1934), occur when suppliers, buyers, and rivals can appropriate the value

of specialized knowledge and information (Williamson, 1991). Appropriability hazards are particularly high for firms active in the same industry (Pisano, 1990), and they are reinforced when appropriability regimes are weak (Teece, 1986), that is, when the technology is almost impossible to protect by patent or other legal means.

In addition to the challenge of accessing new competencies, firms will try to protect their knowledge from actual and/or potential competitors. Indeed, the more valuable, rare, inimitable, and non-substitutable the competencies on the market (Barney, 1991), the more other firms will try to access these competencies. However, since the frontiers of a new market and its perspective of growth are loosely defined (Barney, 1996), the risk of appropriability is difficult to assess ex-ante.

Protecting valuable assets provides a strong incentive to internalize transactions (Williamson, 1994). When new competencies are developed internally, a firm can protect the resulting tacit knowledge by implementing restricting mechanisms and creating causal ambiguity (Lippman & Rumelt, 1982). The firm is an organizational structure that provides mechanisms to protect the knowledge (Porter Liebeskind, 1996). As alliances exhibit tensions between competition and cooperation (Hamel, 1991; Khanna, Gulati, & Nohria, 1998), in contrast, they are particularly subject to appropriability hazards (Oxley, 1997). Firms possessing competencies subject to appropriability hazards should internalize the development of new competencies and limit the recourse to alliances.

Proposition 3: *Facing an emerging industry, the more appropriable its competence base, the more a firm will favor the internal mode over alliances to develop new competencies.*

Relatedness of the New Competencies

Another dimension included in the framework concerns the relatedness of targeted competencies, that is, the internal fit between new and existing competencies. We assume that firms can assess the relatedness between their competencies and the competencies they want to acquire, and that this dimension will influence the governance choices.

Related competencies are defined as competencies sharing some knowledge and routines (Nelson & Winter, 1982), while unrelated competencies reflect unrelated knowledge and routines. For example, among the technological competencies in the e-consulting industry, competencies in systems architecture and competencies in systems security are related. Strategy competencies and design competencies, in contrast, are unrelated. Developing related competencies means that a firm can use some foundations of its exist-

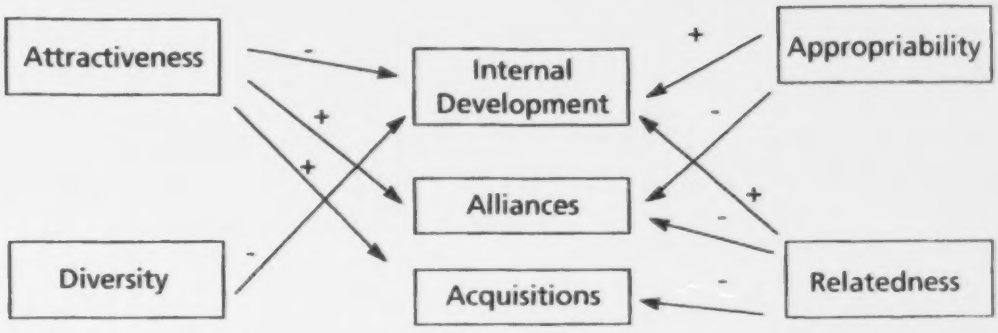

Figure 7.1. Conceptual Framework

ing competencies. Consequently, the firms will not face substantially increased hierarchical costs and should prefer to develop new related competencies internally.

Proposition 4a: *Facing an emerging industry, the higher the relatedness of the required new competencies, the more a firm will favor the internal mode to develop new competencies.*

This task is more arduous for firms deciding to acquire competencies that do not fit well with their competence base. The difficulty in developing new competencies within the firm has been widely documented in the literature (Henderson & Clark, 1990; Henderson & Cockburn, 1994; Leonard-Barton, 1992). Since developing new unrelated competencies involves the acquisition of new knowledge and new routines (Nelson & Winter, 1982), the bureaucratic costs induced by the development of new unrelated competencies will be higher than the bureaucratic costs associated with existing competencies. The risk of failure associated with the internal development of unrelated competencies is also high. Firms will have to make tradeoffs between the bureaucratic costs implied by internal development, the transaction costs of acquiring competencies through the market, and the opportunity costs of being absent or late in the market. The high level of anticipated bureaucratic costs should lead firms to turn to alliances and acquisitions as a way to access new unrelated resources.

Proposition 4b: *Facing an emerging industry, the less the relatedness of the competencies to be acquired, the more a firm will favor acquisitions and alliances to develop new competencies.*

Integrating the RBV and TCE perspectives, Figure 7.1 summarizes these propositions (attractiveness, diversity, appropriability, and relatedness) that attempt to explain the choices made by firms to acquire new competencies

in the context of an emerging industry. The chapter now turns to an application of this framework to the emerging e-consulting industry.

COMPETITION AND DEVELOPMENT OF COMPETENCIES: THE EMERGENCE OF THE E-CONSULTING INDUSTRY

The e-consulting industry, also referred to as the Internet consulting industry, presents several characteristics that make it a good candidate to empirically analyze our research question: the introduction of innovative offers by new actors, a need for new competencies, a high level of uncertainty, and anecdotal evidence that suggests new actors as well as existing firms have made differentiated choices in terms of competencies and modes of governance. Another argument for choosing this industry, especially when studying competencies, is that the frontiers of competencies are rather well delineated and well understood by industry players. Furthermore, the newness of e-consulting allows tracing rather meticulously what has occurred within the early years of the industry.

Our approach draws on qualitative data from the e-consulting industry. While using qualitative data is relatively common in RBV studies, it is much less frequent for TCE studies even if a few works refer to qualitative data (Argyres, 1996). Our analysis draws on Jensen's (1983, p. 332) argument that, in order to progress, a theory must bring "*qualitative and institutional evidence*" to bear on preliminary concepts. The exploratory study relies on both primary and secondary data: (1) primary data gathered through interviews, conducted in 2001, of consultants from both new entrants and established firms; and (2) secondary data from several sources including companies' websites, newspaper articles, professional newsletters, on-line databases, market research companies, and financial reports. These latter data range from 1995 to 2001.

Traditionally characterized by rather inelastic demand, robust growth, and generous profit margins, the management-consulting industry did not appear to be strategically concerned about the diffusion of the Internet. Consulting firms are well known for their ability to renew their services to address changing market needs. The reality, however, has proven to be quite different with the array of major changes occurring, including the entry of new actors, transformation of existing actors, consulting-for-equity, IPOs, and corporate venturing initiatives.

In essence, we suggest that a Schumpeterian shock has occurred in the management-consulting industry that has created the need for an array of new competencies. The discussion briefly traces the entry of and challenges posed by new entrants to the e-consulting industry, then turning to

an analysis of how three firms—Razorfish, McKinsey, and IBM—managed the development of these new competencies.

An Early Lead by New Actors

Beginning in 1995, Internet consultants began to emerge to address market opportunities offered by Internet-related problems and challenges. Until 1998, most companies used the Internet as a brochure through stand-alone web pages. For many companies, the Internet was, at first, mainly synonymous with a fancy web site, the development of which was made by web agencies (e.g., Agency.com, Razorfish) whose background was mostly in design, advertising and/or marketing. During this period, web agencies were almost the only players in the market.

Over time, however, market needs evolved towards much more sophisticated offers. The commercial successes of such companies as Amazon and eBay, the surge in dotcom mania, and vertiginous market capitalization combined to serve as a wake up signal for established companies that began to wonder how they could leverage the Internet. Traditional companies were forced to evolve quickly from a mere web site approach to more comprehensive Internet strategies. Traditional and dotcom companies were, thus, engaged in a race to leverage the Internet and build new competitive advantages. The escalating cost and complexity of information technology and the shortage of in-house technical expertise led companies to increasingly rely on Internet consultants. Clients wanted service providers able to create and design an online identity, develop web-based content and applications, and integrate web-based applications with existing systems. Technology and related technical skills alone, however, were not sufficient to bridge the gap between proliferating dotcom companies and traditional firms.

Around 1997, a new type of actor entered the Internet consulting industry. Encouraged by growth forecasts[4] and vertiginous market capitalization, interactive architects (e.g., AppNet, Scient, Sapient, US Interactive) offered services that integrated traditional IT integration skills with Internet technology and strategic consulting, brand management, and interactive market competencies. Many new firms were created and staffed by ex-employees of traditional consulting companies. Consequently, established companies also decided to improve their business practices by reengineering their business models. In this context, new e-business models relied on the convergence of technology, business strategy, marketing, and design.

Three factors help explain the early dominance of these new actors. First, the new entrants advertised themselves, and were often considered,

as the only legitimate actors capable of providing Internet-related services. Their early presence in the market gave them valuable knowledge of the technology and, perhaps even more importantly, the role of the Internet in corporate and business strategies provided them with an opportunity to develop relationships with both the dotcoms and Fortune 500 companies. The second factor is the size of most early Internet projects. New medium-sized firms were well suited to manage a typical Internet investment of $500,000. The third factor was the absence of traditional consultants in this space.

A Disruptive Shock for the Established Consulting Firms

The e-consulting industry is a good example of an innovation, valued by new customers, that was disruptive to established leaders (Christensen, 1997). New actors challenged even the most prestigious consulting firms by introducing offers specifically dedicated to the needs of the new economy. They promoted themselves as strategic planners in the hopes of becoming the McKinseys and Andersens of the Internet Age. Referring to large consulting firms, Jeffrey Dachis, the CEO of Razorfish did not hesitate to declare "We will put them out of business."[5] Market valuations skyrocketed for a number of publicly-traded Internet consultancies, some of which had yet to turn a profit. In 2000, Scient recorded a market capitalization close to $4 billion and a share price upward of $100. The group of Internet consultancies was trading at 65 percent over the NASDAQ.

At that time, the threat was real for traditional consultants known either for their mastery of strategy or technology, rarely for both, and who often lacked the creativity associated with the Internet. In addition to losing contracts to start-ups, established firms had to face a collective employee exodus. The official staff turnover at McKinsey, for example, rose from 17 percent to 21 percent.[6] Even key executives began to leave large established consulting firms to create or join dotcoms or new consultancies.[7] The San Francisco office of one of the large consultancies lost more than 150 employees out of 250 in less than a year. In addition to losing people, top-consulting firms had trouble attracting new MBA graduates. While analytical skills, the traditional strength of the strategy and management-consulting firms, seemed to be old-fashioned, the cognitive skills of new Internet consultants were in high demand. Furthermore, the partnership structure was highly criticized for not allowing an appropriate response to market changes.

In reaction to the threat of Internet consultants, many of the large consulting firms, which in the past had been very secret organizations (such as McKinsey and BCG), started giving interviews to explain how they were

changing, adopting new ways of working with clients, developing new styles of management, and hiring people with non-MBA backgrounds. Accenture, for example, changed its dress policy to have "the brand more consistent with the values of the firm"[8] and started to give sign-on bonuses to MBAs who accepted offers to join the company. Reflecting on that period, Rajat Gupta, CEO of McKinsey noted: "We, along with almost everyone else in this dramatic period of change, went through a debate about who we are and what we stand for and what we want to be."[9]

Traditional consulting firms also began to encounter competition from technology giants such as IBM and EDS. The increased role of IT competencies in Internet consulting provided an opportunity for large technology firms to leverage their technological competencies and most of them decided to develop their own consulting operations (see Table 7.1). Understanding the technological issues involved in the development of Internet business solutions and being able to deliver end-to-end projects gave technology firms a true competitive edge over traditional consultants.

The Need for New Competencies

Internet solutions evolved from a focus on front-end interactive design toward end-to-end solutions. Early projects were built around design and technological competencies directly related to the Internet. More sophisticated end-to-end Internet solutions included the initial assessment of the client's industry, competitive position and challenge, the design and implementation of the technology solution, its technological and business integration with the existing IT infrastructure, and its web-based interface. While projects became more IT focused with back-end integration playing a greater role, marketing and design competencies have become less valued. The repartition of functional competencies used in a typical Internet project shifted from approximately 75 percent design/strategy and 25 percent IT to 25 percent design/marketing, 25 percent strategic consulting, and 50 percent IT.[10] E-consulting, however, is not a simple juxtaposition of these four competencies. The key to success has been the ability to integrate functional competencies, and many startups have been able to develop strong foundations in these areas while established firms have struggled to achieve such integrative competencies (see Table 7.2).

Strategies for Developing New Competencies: Three Cases

This section examines how three actors in the e-consulting industry attempted to develop the competencies illustrated in Table 7.2. The focus

Table 7.1. Sample of Competitors in the E-consulting industry

Internet Service Firms	*Technology integrators (consulting service firms)*	*Strategic consulting firms*	*Professional services groups of computer equipment companies*
Agency.com	Accenture	Bain	Compaq
Answerthink	KPMG	Booz-Allen & Hamilton	Hewlett-Packard
Braun Consulting	Ernst & Young	Boston Consulting Group	IBM
Breakaway Solutions	Deloitte Consulting	McKinsey	Novell
Cambridge Technology Partners	PricewaterhouseCoopers	Gemini Consulting	
Diamond Technology Partners	Cambridge	Monitor	
MarchFIRST	Technology Partners	Mars	
IXL	Cap Gemini	AT Kearny	
Razorfish	Sapient		
Scient			
Viant			
Icon Medialab			
Framfab			
Modem Media			
Poppe Tyson			
Organic Online			
Pixelpark			
Proxicon			
Zefer			
Xpedior			

Sources: Industry Standard, Web sites, Annual reports, Press reports

is on Razorfish, McKinsey, and IBM, three companies that provide good illustrations of what their counterparts (dotcoms, traditional consulting firms, technology firms) have done.

Razorfish: An Active Specialized Newcomer

Since its founding in 1995 as a web agency, Razorfish has focused exclusively on delivering digital solutions. The company has expanded its operations through thirteen acquisitions[11] for a total of $724 million and 500 supplementary employees. Competencies accessed through these acquisitions range from design (CHBi, Limage Dangereuse) to back-end integration

Table 7.2. Illustrative Competencies in the E-consulting industry

	Technological Competencies	*Marketing Competencies*	*Design Competencies*	*Strategy Competencies*
Functional Competencies	• Security expertise • Systems architecture • Systems development • Skills with existing technologies • Skills with emerging technologies • Integration competencies • Database integration	• General purpose access on the Internet • Brand Management • Front-end advertising • Marketing planning	• Graphical interfaces • Site design	• Industry strategic analysis/ insights/Business model design • Strategic planning
Intergrative Competencies	• Structured and integrated approach to client engagements • Rapid deployment • Execution capabilities • Knowledge management expertise • Team management • Training • Development of entrepreneurial skills			

Sources: Industry standard, Web sites, Annual reports, Press reports

(MediaLab, i-Cube). Razorfish has also engaged in several partnerships (e.g., AT&T, IBM, Intel, Interwoven, Microsoft, Nokia, SAP, Siebel). Finally, hundreds of consultants were hired to serve on Razorfish's integrated teams. Most of the new actors, including such firms as Agency.com, AnswerThink, and iXL Enterprises, have adopted comparable strategies to develop new competencies: market acquisitions to access missing competencies, alliances with product vendors, and recruitment of hundreds of consultants. Scient, which decided to rely exclusively on organic growth, is a notable exception.

McKinsey: A Tradition of Internal Growth

McKinsey has always relied on internal growth through the recruitment of top-level consultants. Its acquisition of Information Consulting Group in 1989 was considered a failure due to irreconcilable cultural differences. As such, addressing the e-consulting market was not easy for McKinsey. First, the traditional client base of McKinsey was made of blue-chip companies and McKinsey did not talk to dotcoms nor did dotcoms talk to McKinsey. The level of its consulting fees and its reputation as a traditional consultancy did not make it a potential service provider for companies looking to develop Internet strategies. Secondly, McKinsey did not have the competencies to address this market. As a pure strategy firm, McKinsey had limited knowledge of technological, design, and marketing issues. Hiring technology, design, and marketing consultants was a no-go decision for McKinsey.

Increasing pressure from both inside and outside the firm, however, led McKinsey to react to these market changes. McKinsey's response mainly consisted of building two new business units: @mckinsey and BTO (Business Technology Office). Positioned as the e-commerce functional practice of McKinsey, @mckinsey included an accelerator for funded Internet startups and new e-divisions of established companies. Staffed mostly with consultants coming from McKinsey, @mckinsey was also promoted as a retention tool for consultants interested in working for a dotcom. In a separate move, McKinsey broke its pure "strategy" strategy by creating BTO, its new technology division. This division operated as a totally distinct entity from McKinsey and @mckinsey to the point where employees of BTO, who were mostly computer science engineers, could not be transferred to McKinsey. In fact, well beyond the development of Internet-based consulting skills within McKinsey, the creation of BTO readily contributed to the growth of the IT consulting market itself.

During this period, McKinsey made very few Internet-related acquisitions and alliances. The company did build a strategic partnership with AV Labs, the accelerator fund spin-off of Austin Ventures. McKinsey provided its business expertise to AV Labs' early-stage portfolio companies, and AV Labs invested in and helped develop the e-commerce initiatives of McKinsey clients. In February 2000, McKinsey announced a strategic research alliance with Media Metrix, a specialist in Internet and digital media audience measurement, to develop a deep understanding of online consumer behavior. In March 2001, McKinsey bought Envision, a Chicago-based brand strategy firm with fourteen employees, in order to establish a dedicated branding practice.

IBM: Both Alliances and Acquisitions

Over the last decade, IBM Global Services, the consulting unit of IBM, reached a worldwide force of 50,000 professionals mostly through internal (organic) growth. In January 2000, IBM Global Services created Business Innovation Services (BIS) in order to integrate its strategy-focused consulting division with its systems integration practice. BIS brings together business strategists, marketing specialists, interactive designers, application developers, and systems integration specialists. In March 2000, IBM appointed a creative director who was hired away from a digital media agency and announced the hiring of an additional 400 consultants for its innovation services teams.

In November 1999, IBM launched a global alliance network, which included: The Coleman Group Worldwide, a Web branding and design consulting firm; OgilvyOne, a one-to-one marketing company; Answer-Think, an Internet consulting and services company; Internet Research Group, a Web research and marketing strategy firm; RGA Interactive, a developer of innovative interactive content; net.Genesis, a provider of Web analysis software; DoubleClick a provider of online marketing and merchandising tool; and, Net Perceptions, a developer of personalization tools. In April 2000, another global alliance was set up with Mercer Management Consulting. Targeted at both large corporations and dotcoms, the alliance was presented as the first to offer the wide range of services and expertise necessary for launching a new company in the Internet economy.

IBM also made two acquisitions related to e-consulting. In August 2000, IBM acquired Aragon Consulting Group, a marketing research and strategy firm. This acquisition was aimed at strengthening IBM's ability to deliver the entire spectrum of e-business services, from business strategy to back-end integration. Mainspring, an e-business strategy consulting player, was bought in April 2001 to bring additional strategic consulting and expertise to IBM's consulting arm. The 170 billable employees of Mainspring raised the total of IBM's e-business strategy unit to 2,000 professionals.

DISCUSSION

Drawing on the preceding discussion of how Razorfish, McKinsey, and IBM have attempted to develop competencies in the e-consulting industry, this section applies our theoretical framework (see Figure 7.1) and examines the influence exerted by the four key factors: the attractiveness, diversity, appropriability, and relatedness of the competence base.

Attractiveness of the Competence Base

The e-consulting industry provides a good illustration of why the notion of competence destroying/enhancing technology (Tushman and Anderson, 1986) is not a satisfactory dichotomy. In 1998 and 1999, established consultancies felt disarmed by the rise of new e-consultants. Some industry analysts even predicted that traditional consulting competencies could become obsolete and that the key to success was to replicate the business models introduced by the new entrants. By the end of 2000, however, things had significantly changed, with traditional consulting firms again perceived as attractive while many, if not most, of the new actors were struggling for their survival.

Prior to 2000, customers looking to develop Internet strategies did favor the new actors, and their competencies were considered as very attractive. The exponential growth rate enjoyed by these firms reflects the interest in their services. Despite deep and lasting client relationships, in contrast, the traditional consultancies were not perceived by most customers as the best companies to help them meet the challenges of the Internet economy. As a result, traditional consultants encountered difficulties in selling their services to dotcoms as well as Fortune 500 clients looking for Internet consulting services. The main reason was the lack of at least one of the key competencies—from marketing to design to Internet technologies themselves—necessary to address the Internet market. Difficulty delivering small or medium-size projects within short periods of time was also an issue.

As the size of the projects increased and business issues became prominent, however, traditional management-consulting firms gained back some advantage over the new entrants. The competence-destroying effect that the new Internet consulting offers were predicted to cause did not materialize. As the market evolved, the traditional skills of existing consultants retained their value, all of which indicates how the competence enhancing/destroying distinction can be misleading.

As the example of Razorfish suggests, new e-consultants utilized all three governance modes—internal development, acquisitions and alliances—to develop competencies. The established consulting firms, in contrast, made relatively limited use of alliances and acquisitions. While many consulting firms did build partnerships, these alliances were mostly aimed at the creation of venturing funds.[12] Technology firms, as exemplified by IBM, engaged in the three modes. However, in contrast to new e-consultants, their moves were much more limited. Thus, drawing on the model presented in Figure 7.1, firms with attractive competencies seem to rely on each mode of governance to develop new competencies, while firms with the least attractive competence base in new market conditions (in this

instance the traditional consultancies) seem to rely more heavily on internal development rather than acquisitions and alliances.

Diversity of the Competence Base

A distinction has to be made between new actors and established firms, as the diversity dimension does not appear to be discriminatory for new actors. In fact, most new actors started as specialists in a particular functional area, whether technology, strategy, or design/marketing. Using Razorfish as our example, it seems that new entrants rely on all three modes to develop new competencies. As previously noted, one exception has been Scient, which by choice has focused exclusively on internal development. The framework links the diversity of the competence base to the modes used by the firm in the past (Argyres & Liebeskind, 1999), and since new actors do not have such history they are not bounded by path-dependent behaviors.

Among established firms, two groups have coexisted, one composed of traditional strategy consultants (e.g., McKinsey, Bain, BCG) and the second composed of service groups of computer equipment manufacturers and technology integrators (e.g., IBM), that were operating across several functional domains. Again, drawing on our case vignettes, companies in the technology sector appear to have relied on the three modes of governance to develop e-consulting competencies, while the established consulting firms focused mainly on internal development. Within the population of established firms, the least diverse companies appear to rely on internal development while the more diverse have favored all three modes.

Appropriability Hazards of the Competence Base

The consulting industry is a knowledge industry in which both information (who knows what) and know-how (how to do something) (Kogut & Zander, 1992) are essential. The appropriability regime (Teece, 1986) in the e-consulting industry can be described as relatively weak. In comparison to the technology firms, new actors and traditional consultancies were subject to appropriability hazards. New actors attempted to build their competitive advantage by integrating previously separated competencies, and this integration was realized through the development of dedicated methodologies and specific project management processes. The novelty of these methodologies along with their success among clients raised their potential for appropriability hazards. Indeed, protecting these methodolo-

gies and business processes from imitation by competitors appeared to be difficult.

In addition to recruiting high-level employees, traditional strategy-consulting firms attempted to build their success on the uniqueness of their relationships with the CEOs of Fortune 500 companies, their in-depth knowledge of specific industries, and dedicated methodologies. Since cooperating through an alliance implies the need to share at least some knowledge with partners (Khanna, et al, 1998; Oxley, 1997), building partnerships would have exposed them to appropriability hazards. Technology integrators and equipment manufacturers, in contrast, had competencies less subject to appropriability hazards since traditional mechanisms for protecting intellectual property could be applied.

Relatedness of the Targeted Competencies

We have hypothesized that a firm will tend to favor the internal mode when the relatedness between targeted competencies and existing competencies is high. In case of limited fit, acquisitions and alliances should be favored. Since the four functional competencies valued in the e-consulting industry (technology, marketing, design, and strategy) are related to very different types of skills, it is suggested that the fit between each of these competencies is limited. McKinsey, for example, attempted to strengthen its core competence base in strategy by hiring talented individuals. Similarly, the two acquisitions made by IBM were aimed at strengthening its strategy competencies, while alliances were mainly related to design and marketing competencies. IBM has not engaged in acquisitions or alliances directly related to its core technological competencies. Finally, Razorfish, which started as a Web agency, pursued an intensive strategy of acquisitions, but its two main acquisitions (Spray Network and I-Cube) were related to technology competencies. Thus, it appears that in the Internet consulting industry, firms have tended to acquire related competencies through internal mode, while unrelated competencies have been mostly accessed through acquisitions and alliances.

PERSPECTIVES ON COMPETENCY DEVELOPMENT

Building on previous research, the objective of this chapter was to derive an analytic framework to help explain how firms access new competencies in a highly uncertain environment. Since we began this research with the premise that little is known on how firms develop new competencies in the

context of an emerging industry, we believe this chapter, though preliminary, makes several contributions.

First, by drawing propositions linking the status of the competence base of the firm, the prevailing uncertainty in the industry, the specificity of the competencies needed, and the modes of governance available, we attempted to explain the factors impacting the evolution of firms' boundaries. These propositions should serve as the basis for further research and quantitative study of a larger number of firms and how they attempt to develop new competencies.

Second, based on the assumption that one theory does not always provide a realistic picture of a phenomenon (Dyer & Singh, 1998; Steensma & Gorley, 2001), the proposed framework integrates two theoretical perspectives, arguing that firms make choices based on both the characteristics of the modes of governance and the characteristics of their competencies. We suggest that this exploratory work provides support for the complementarity view between the TCE and the RBV (Dosi &Teece, 1992; Silverman, 1999), serving as a tentative answer to the wishes expressed by Williamson (1999) and Teece (1998) for some integration between the RBV and TCE models.

Third, compared to the emphasis placed on alliances and acquisitions, internal development has received much less attention in the literature. Our research suggests that internal development should be viewed on an equal footing as the two other modes. While considering each mode in isolation is informative, it does not provide a global picture and can lead to substantial bias. Consequently, this chapter attempts to bridge a gap in the literature by drawing a global comparison between the three modes as a way for accessing to competencies.

Finally, the focus on the e-consulting industry allows us to explore the dynamics associated with a creative, disruptive shock (Schumpeter, 1934). The discussion has attempted to provide insights on a new industry that has not been the subject of many studies, showing how new actors threatened established firms and how both categories of firms attempted to develop the requisite new competencies.

The major limitation of this chapter is its exploratory nature and the absence of an empirical test of validation. Even if the case evidence provided suggests some support for our propositions, an empirical study centered on a careful operationalization of these variables is needed to confirm the tentative conclusions drawn in this paper. Nevertheless, we are confident that the model presented in this chapter does have a reasonable predictive value on how firms develop new competencies in emerging industries, with a high potential for generalizability across firms and industries.

NOTES

1. An earlier version of this chapter was presented as part of the Management Consulting Division program at the 2002 Academy of Management meeting in Denver, Colorado. Valerie Claude-Gaudillat received the *Bentley College-Copenhagen Business School Award* for the best paper written by a doctoral student. Valerie Claude-Gaudillat and Bertrand Quelin also thank the HEC Foundation for its financial support.
2. Competence leveraging refers to the application of a firm's existing competencies to current or new market opportunities (Sanchez et. al, 1996, p. 8).
3. Competence building is defined as the process by which a firm achieves qualitative changes in its existing stock of assets and competencies. It often involves creating or adopting new competencies in the use of new or existing assets (Sanchez et. al, 1996, p. 14).
4. After a moderate increase between 1995 and 1998, the growth rate of e-consulting exploded in 1999 and 2000. The turnover of Razorfish jumped by 1,129% between 1998 and 1999. By early 2000, the Forrester Research Group estimated that globally 2,500 companies budgeted roughly $4.3 million on average for web-consulting services for the year 2000 and a doubling of that amount was expected for 2001.
5. Reported in "Rebounding from threat by e-consultants," *Financial Times Survey*, March 30, 2001.
6. Reported in "Profile: Rajat Gupta of McKinsey," *Financial Times*, March 30, 2001, p. III.
7. As an example of such executive exodus, Pamela Thomas-Graham (ex-McKinsey) joined CNBC.com, Andersen Consulting CEO George Shaheen left for the online grocer Webvan, and Andersen Consulting's former head of e-commerce, Rudy Puryear, left for Lante, a Chicago-based Internet consulting company.
8. Reported in "Bursting of the dotcom bubble re-directs the available talent," *Financial Times*, March 30, 2001, p. III.
9. Reported in "Profile: Rajat Gupta of McKinsey," *Financial Times*, March 30, 2001, p. III.
10. See Bankers Trust (BT) Alex Brown, *The Interactive Architect: A New Class of Systems Integrator Positioned to Deliver on the Internet/E-commerce Opportunity*, January 6, 1999.
11. The companies acquired by Razorfish include Limage Dangereuse, Qb International Holding, TS Design, Lee Hunt Associates, International Integration Inc. (I-Cube), Fuel and Tonga, Electrokinetics, Spray Network, Sunbather Limited, Media, Plastic, CHBi, and Avalanche Systems.
12. A good example of this tendency is eVolution, the investment firm formed by Bain with Kleiner Perkins and Texas Pacific Group to help the global incumbent companies develop new business models centered on the Internet.

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Part III

ENHANCING INTER-FIRM NETWORKS

CHAPTER 8

REFLEXIVE DEVELOPMENT OF INTER-FIRM NETWORKS

The Role of Managers and Consultants

Joerg Sydow and Arnold Windeler

The reflexivity of social life consists in the fact that social practices are constantly examined and reformed in the light of incoming information about those very practices, thus constitutively altering their character.

—Giddens (1990, p. 38)

IS THERE A ROLE FOR MANAGERS AND CONSULTANTS IN NETWORK DEVELOPMENT?

Insights from research as well as practical experience seem to provoke contradictory conclusions about the management and development of inter-firm networks. While some scholars and practitioners believe such networks—partly in contrast to organizations—evolve, most seem to be quite confident that they can be managed and controlled by more or less direct intervention (e.g., Buono, 1997; Chisholm, 1998; Cummings, 1984; Huxham, 1996). There certainly is a role for managers and consultants in the development of inter-firm networks in both perspectives, but only the lat-

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ter provides clear advice on how to manage and consult in the process of network development. Yet, due to a lack of appropriate theoretical foundation and sound empirical insight, some of this advice may well be precipitate, even destructive to the effective development of inter-firm networks.

Using structuration theory, a processual theory that focuses on social practices, the chapter attempts to provide a realistic perspective on organizing and managing inter-firm networks. This perspective provides researchers and practitioners with a lens that looks at organizing and managing processes as "reflexive structuration" (Ortmann, Sydow & Windeler, 1997). It highlights the necessity that agents, such as managers and consultants, continuously produce and reproduce network structures. At the same time, it makes clear that these structures, which are not independent of the agents' practices, enable and restrain these very managerial actions. As such, this perspective develops a processual view of the development of inter-firm networks that looks at structures as being dependent on continuous reproduction by means of social practices. Thereby, it acknowledges that change processes are a permanent fact of organizational and interorganizational life—and always a precarious social accomplishment. In this respect, this perspective is similar to recent attempts to conceptualize organizational change as "organizational becoming" (Tsoukas & Chia, 2002). In another respect, a structurationist network perspective adds to the line of research on interorganizational networks that puts processes first (e.g., Doz, Olk, & Ring, 2000; Ring & Van de Ven, 1994) while acknowledging the relational character of this organizational form (e.g., Dyer & Singh, 1998; Gulati, 1998).

In the chapter, the structurationist perspective is applied to the analysis of a major network development initiative in the German photonics industry. While this political initiative, which is being financed by the Federal Ministry of Education and Research (BMBF) for a 5-year period (2001–2005), acknowledges the global character of this industry, its aim is to augment networking on a regional cluster level. These regional clusters are made up of a significant number of concrete, cooperative arrangements between firms and research institutions. For this reason, the most important level of evolution, intervention or, in our view more appropriately, reflexive structuration is concrete cooperation in inter-firm networks.

Managers and consultants matter most at this network level. However, the development of these concrete networks is likely to profit from cooperation at the regional cluster level where managers, consultants, and other external experts may also play a significant role. Above all, and most obviously from a structurationist network perspective, the recursive interplay between the network level and field level of regional clusters seems to be *the* key to successful inter-firm networking—hence, the building up of a networked region which is central to concepts in economic geography like

"industrial district" (Marshall, 1962) or, more fashionably, "learning region" (Morgan, 1997).

ORGANIZING AND MANAGING INTER-FIRM NETWORKS AS REFLEXIVE STRUCTURATION

A structurationist network perspective, which is based on Giddens' (1984) general theory of structuration, emphasizes that structures, including those of organizations, networks, and fields, are produced and reproduced by agents. It also points to the difficulties agents face when monitoring or even attempting to control every outcome of their productive actions (Windeler, 2001). This is particularly true since managers and consultants (as agents) always act under partly unacknowledged conditions that may even result from unintended consequences of former interactions. This perspective further acknowledges the fact that agents can always act otherwise, that is, that there is a "dialectic of control" (Giddens, 1984) that operates in any social system.

If applied to the analysis of inter-firm networks, this perspective views organizing and managing this organizational form as the reflexive structuration of a particular social system—that is, the network (Sydow & Windeler, 1998). In the process of structuration, managers and consultants (as network agents) refer to structural properties of the network (e.g., the quality of the network relations) and reproduce and eventually transform them. In addition, and necessarily in the early stages of network development, they also refer to structural properties of their member organizations (e.g., organizational competencies) and the wider organizational field (e.g., shared industry expertise) either within or across industries and/or regions (Li & Berta, 2002; Windeler & Sydow, 2001). With varying degrees of institutionalization, reflexivity is built into each of these system levels and their respective practices, although organizations are usually believed to exhibit the highest level of institutionalized reflexivity.

Network Management as Reflexive Social Practices

According to Giddens (1984, p. 2), "the basic domain of study of the social sciences, according to the theory of structuration, is neither the experience of the individual actor, nor the existence of any form of societal totality, but social practices ordered across space and time." In the case of inter-firm networks, the practices of network managers are of central interest because they contribute significantly to the evolution, or more appropriately from a structuration perspective, to the constitution of the network

as a social system. These management practices are generated by managers reflexively and, in turn, constitute these individuals as managers. However, consultants, who are believed to increase the efficiency and effectiveness of management, also influence these practices. At the very least, their efforts raise the level of reflexivity and legitimacy. While the notion of legitimacy needs no further explanation, reflexivity means the constant examination and reformation of practices in light of incoming information about those very practices. As such, it implies that agents "routinely 'keep in touch' with the grounds of what they do as an integral part of doing it" (Giddens, 1990, p. 36).

Reflexivity, of course, is an attribute of all human beings. However, organizing and managing as reflexive structuration goes one step further by not only signifying and legitimating the use of resources—like relations to consultants—but reflexively using resources themselves in these processes which (try to) contribute to organizational or interorganizational reflexivity (Ortmann et. al, 1997, pp. 315–317).

While consultants and other external experts already play an important role for the diffusion of organizational and field practices (Ernst & Kieser, 2003), this is less so with respect to interorganizational practices in networks. Potentially, there may nevertheless be an important role for them in enhancing the reflexivity and legitimacy of network formation and management (Buono, 1997). At present, however, only few consultants and other experts seem to understand the complex processes at work in network formation and management, and are therefore able to contribute to the reflection of organizing and managing inter-firm networks as reflexive structuration (Loose, 2001).

Network management means influencing, via such reflexive practices that are eventually informed by consultants, the formation and evolution of this organizational form intentionally but, and this is particularly important, *without assuming* one is able to fully control all conditions and consequences of the respective actions. Most of these activities, directly or at least indirectly, aim at shaping the mainly cooperative, reciprocal, and complex interorganizational relationships that make up this organizational form (Sydow, 1992). Improving interorganizational cooperation is "the essence of network development" (Van Gils, 1984, p. 1095). Via respective network practices, managers as well as consultants and other agents reproduce (network) structures that, in turn, enable and restrain these very practices.

In somewhat more detail, structuration theory conceptualizes the (re-) production of inter-firm networks and their structures as brought about by knowledgeable agents in interaction on three analytically separable social dimensions: signification, legitimation, and domination. In their practices, managers and consultants (as agents) refer to rules of signification and

legitimation when they signify events and actions or sanction them as apt, viable, or correct. Moreover, they actualize resources of domination in order to powerfully intervene into interaction sequences. Agents, by referring to these rules and by actualizing these resources, reproduce and eventually transform the particular structures of the network.

As an illustration, a consultant may, in his or her communication to managers of member organizations, refer to the present understanding of what the "interorganizational domain" (Trist, 1983) of the network is about (as a rule of signification) and, thereby, use the idea of the domain being made up of an ensemble of organizational core competencies as an interpretive scheme. By doing so, he or she may contribute to the common understanding of what makes a viable or even "optimal" interorganizational domain, that is, the reproduction of the very rule of signification. Whether the consultant really reproduces this rule depends not only on his or her ability to use interpretive schemes related to the common or new rules of the field, but also upon the conditions under which the communications and the actions (including the interpretations) of the network members (dialectic of control) take place.

Similar examples could be given for the use of rules of legitimation and resources of domination, the other two aspects of social (re-)production. This "duality of structure" (Giddens, 1984), which avoids detaching action from structure as is common in dualistic conceptualizations, is not only in effect during the reproduction of network structures. Rather, managers, consultants and others acting within inter-firm networks may, via this same mechanism, refer to structural properties of their home organization *and* of the wider "organizational field" (DiMaggio & Powell, 1983). Especially in the genesis of an inter-firm network, structural properties of the participating organizations and the field they operate in may be of extraordinary importance, since the network (in the process of formation) has hardly formed any structural properties of its own.

In summary, a structurationist network perspective promotes a multilevel approach to the study of network development processes via network practices, including the practices of managers and consultants. This dual focus—on structure and action (structuration)—and the different levels of analysis incorporate both the knowledgeability of agents and the importance of the structural properties of social systems themselves (the organizations, the fields, and, once they have been built up, the networks).

Network Management and Network Development: A Recursive Relationship

Network management, intentionally as well as unintentionally, contributes to the development of an inter-firm network over time. This network is constituted by organizations through their interorganizational interactions and relationships and embedded in one or even several organizational fields (Windeler, 2001). Such network management practices include the selection and reselection of partner firms, the determination of the interorganizational domain, the allocation of necessary resources, and the formulation, formalization, and evaluation of network rules and procedures. However, as much as network management contributes to network development, the particular development of the network also influences the network management practices.

The use of a particular formal evaluation method, for instance, may well be appropriate in later stages of network development, but detrimental to early trust-building processes and even superfluous when agents know each other and each others' practices very well (Sydow & Windeler, in press). Thereby, it is noteworthy that—in face of the unacknowledged conditions and unintended consequences of action as well as of the omnipresent dialectic of control—any generalized stage model of network development is misleading. Rather, these developmental processes are full of tensions and contradictions (e.g., between trust and control; cf. Bachmann, Knights, & Sydow, 2001; Sydow & Windeler, in press). Nevertheless, managers—with or without the help of external experts—must manage them if they wish to create the cooperative, reciprocal, and complex interorganizational relationships that are characteristic of inter-firm networks.

The interplay between network management and network development should be conceived as being as subtle and recursive as the interplay between organizations, networks, and fields. In addition, it is important to note that management practices—even if they aim directly only at one network partner and/or the (dyadic) relationship with that partner—always, intentionally or unintentionally, affect the set of relationships among the network members. In turn, these sets of relationships have an influence on network management and, thus, network development.

MANAGERS AND CONSULTANTS IN THE PROCESS OF NETWORK DEVELOPMENT: PRELIMINARY INSIGHTS FROM THE FIELD OF PHOTONICS

As an enabling technology, photonics (also known as opto-electronics) is pervasive in modern life. There are several technological areas where

breakthroughs in photonics are taking place and rapid change is likely. A U.S. National Research Council (1998, p. 2) study points to seven major areas which are of importance for all nations: (1) information technology and telecommunications; (2) health care and the life sciences; (3) optical sensing, lighting, and energy; (4) optics in manufacturing; (5) national defense; (6) manufacturing of optical components and systems; and (7) optics research and education. Such studies, together with more detailed technological roadmaps, have had a significant impact in the scientific and political sphere, including, for instance, the policy of the BMBF in Germany.

Due to the system character of new technologies in photonics, the enormous investments necessary, the high technological and economic risks involved, and the necessity to coordinate agents from different scientific backgrounds (optical physics, electronics, chemistry) as well as from different societal spheres (such as economics and politics) and from different locations around the world, the development is not likely to be driven by single actors. Instead developments in photonics will be driven by complex constellations of individual and corporate agents (Hendry, Brown, DeFillippi, & Hassink, 1999). In fact, apart from concrete firms and inter-firm networks, the development lies in the hands of even more complex collaborative ventures such as national and supranational consortia, industry associations, and public-private partnerships.

The managerial challenges in this process are significant, complicated by the interplay of different social systems on several levels, among them concrete inter-firm networks and regional organizational fields or clusters. Before looking at the interplay between networking processes on these system levels, which we conceive as *the* key to successful inter-firm networking and the building up of a regional cluster, we first look at each level of reflexive structuration—and the role of managers and consultants in each—separately.

Developing a Regional Cluster in the Field of Photonics: The Case of OpTecBB

In 2000, the BMBF launched a competition for regions to develop the field of photonics in Germany by the means of interorganizational networking—OptecNet (see www.optecnet.de). A year later, seven regions, among them Optical Technologies Berlin-Brandenburg (OpTecBB; see www.optecbb.de), began to receive financial support for their regional network activities within the OptecNet program for a period of five years (another region in Northern Germany joined these seven at its own expense). While several of the regions did not have a defined plan as to

how they would proceed in this process, others obtained support from consultants and other external experts in developing a concept for the network development process. Within this context, external expertise was already critical in initially drawing up and passing the regulations for the OptecNet program itself.

To understand the activities of managers, consultants and other experts, it is helpful to conceptualize these eight regions as regional organizational fields, (re-)produced by organizations that "in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products" (DiMaggio & Powell, 1983, p. 143). As such, the concept of organizational field is not only open to specification with respect to industry and locality, but also allows one to distinguish between three types of governance (market, network and hierarchy) and two sets of relevant actors (organizations, especially firms and research institutes, involved in concrete inter-firm networks and related organizations that sustain the activities of these very networks) (see Figure 8.1). While actors of inter-firm networks are particularly likely to stem from the economic sphere and act according to "economic logic," organizations from other spheres, science and politics in particular, are likely to supplement the organizational field with their own logics. Thus it is important for managers, consultants, and other external experts to acknowledge the influence of these different logics when developing regional clusters of competencies in the field of photonics.

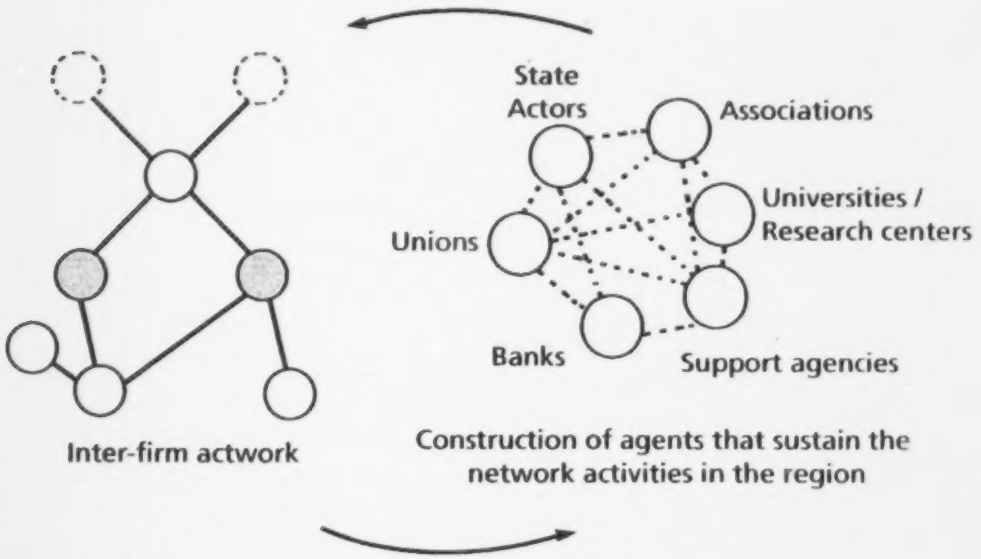

Figure 8.1. Model of an organizational field: The main sets of actors. [Adapted from Windeler (2001, p. 59).]

The structural properties of organizational fields can differ to a great extent. The differences may originate, not only from the different spheres and logics of the member organizations, but also from different forms of coordination within the concrete inter-firm network, from the constellation of supporting actors in the field and, last but not least, from the different governance forms found in the interplay of the two sets of actors. This again should be taken into account when developing the field.

The German OptecNet program aims at developing regional fields of photonics by the means of interorganizational networking, that is, the fields of organizations should turn into clusters of competencies (Brenner & Fornahl, 2003). However, the program does not prescribe in any detail how the actors should coordinate their activities and relations. The latitude for the choice of network(-like) coordination is, therefore, rather high and will be influenced by these different logics and other structural properties of the respective regional fields. Thus, this stance does not reflect a lack of steering competency from the state agents, but rather their insight into the necessity to adapt coordination mechanisms to the diversity of structural properties of regions. The need for such adaptation includes differences in which organization will take the initiative for coordination as well as different forms of coordination in developing the field through inter-firm networking.

The initiative may be taken by either one (or more) already established player(s) in an inter-firm network (or organizations from the economic sphere more generally) or from the sets of sustaining actors in the wider field. Similarly, the interorganizational governance may vary significantly as well (i.e., between market, networks and organizations; see Powell, 1990). Finally, the network form of coordination itself may either exhibit primarily hierarchical or heterarchical structures. While the former implies the existence of a central coordinator (such as a hub firm), the latter form of coordination is predominantly based on the self-governed activities of network members and/or the sustaining group of actors. The creation of a "referent organization" (Trist, 1983), "regional learning network organization" (Hanssen-Bauer & Snow, 1996) or "network administrative organization" (NAO; see Human & Provan, 2000) may sustain the process of network coordination in both ways, depending upon the actual structuring of the organization.

Ultimately, the creation of this kind of organization was the minimum requirement of the OptecNet initiative for the regions taking part in the competition. Starting from this minimum requirement and the more heterarchical rather than hierarchical properties of the field in Berlin and Brandenburg, external experts supported the NAO's development of a five-year plan to turn the regional field of photonics into a regional cluster of competencies. An underlying consideration was that the initiative in this

region was undertaken by one of the sustaining actors of the field, and that this field is quite heterarchically structured.

Based on the acknowledgment of these initial conditions and the idea that inter-firm networking will be the foundation of any successful cluster initiative, several processes were envisioned. Among them are: (1) regular strategy meetings and workshops, involving up to 60 organizations, of which about a quarter belong to the subfield of photonics for the internet; (2) mutual visits of network firms and institutes that allow them to present themselves and their competencies to other network organizations; (3) installation of network brokers and network sponsors; and (4) a data base with the competencies of member organizations. Although not all of these initiatives have been fully implemented, OpTecBB is certainly on its way to becoming a networked region or cluster. The meetings, workshops, and visits have significantly improved communication among network members on both levels–the OpTecBB itself and individual inter-firm networks.

The NAO, which was incorporated as an association and is governed by a board of directors made up of representatives of several rather distinct fields of applications of photonics (among which optical technologies for the internet is only one), has contributed significantly to the networking process. This institution coordinates nearly all activities within OpTecBB and, at present, is thinking about developing a complex evaluation procedure that could monitor and support the network development process. Beyond that, the NAO has started to provide a broad range of services (e.g., intranet-based information system; public relations and joint presence at trade fairs; access to legal advice, training, consultants, and marketing specialists) to further support the network.

Developing an inter-firm Network within OpTecBB: The Case of Photon Inc.

Photon Inc. is a pseudonym for a typical small but very dynamic start-up firm in the field of photonics. Founded in 2000, it has started to organize an inter-firm network within and beyond OpTecBB concerned with the development and production of modules, components, and high-speed integrated circuits (ICs) for the field of information technology and telecommunications (in essence, the Internet). At present, its network includes more than three dozen organizations: other start-ups, subcontractors, suppliers, foundries and, last but not least, research institutes internal and external to universities—some of them acting as contract manufacturers (see Figure 8.2).

Corresponding to the increasingly global character of the photonic industry, the partners are situated not only within OpTecBB but on three different levels (regional, national, and international). On each of these

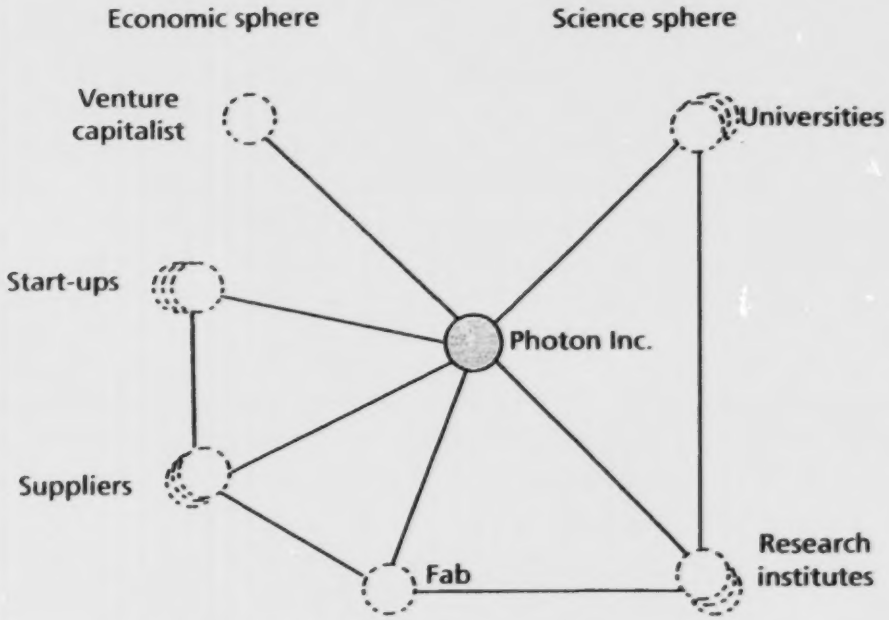

Figure 8.2. The inter-firm network of Photon Inc.

levels, Photon Inc. works with approximately a dozen other organizations. The management tasks are therefore rather complex, while, as typical of start-ups, the management capacities are rather restricted. Therefore, the entrepreneurs with their teams (have to) shoulder the management tasks, often as a byproduct of their main tasks—developing and producing marketable products or services. At first sight, they manage their organization and their inter-firm network without any external support. However, they use their network relations in these respects—as we shall outline below.

Before setting up the firm in 2000, the entrepreneurs worked as either engineers or managers with a global player in the semiconductor industry. Photon Inc. can, therefore, be looked at as a split-off of this player; and the entrepreneurs can be considered highly-qualified industry experts—not only in technological and market terms, but in managerial terms as well. In fact, the entrepreneurs diagnosed the opportunity to develop and market special products from a highly-specialized production line. To finance their venture, they convinced two venture capitalists of their five-year business plan. In 2002, Photon Inc. employed roughly twenty employees. Most of them have a university degree and have worked before with either well-known international companies or with highly regarded research institutes.

Photon Inc. started as a pure project organization with the mission to transfer basic research into new products in the field of photonics for the internet by (1) shortening the typical innovation cycle and (2) implement-

ing leading-edge technology. Due to rather restricted capital resources and the deep involvement in technological development, Photon develops its products in close interaction with researchers from five university institutes, four of which are located in the Berlin-Brandenburg region. In addition, the firm cooperates with two regional and three national research institutes. This form of cooperative development not only guarantees access to the necessary leading-edge research and technology, but it also allows for control over the most critical resources. Such resources include the transfer of scientific knowledge and respective capabilities, and the use of facilities needed to qualify the engineering systems before they can produce qualified parts and components. However, in order to be able to use and control these resources, the management has to understand the rules of signification and legitimation as well as the practices of resource use that prevail in the network.

With regard to the actual production of the sample parts and components for the internet, Photon Inc. aims at "fabrication-less" (fab-less) production. Thus, while the network-based firm avoids high investments in building and machinery, it has to secure qualified suppliers and contract manufacturers. At present, Photon Inc. works with ten subcontractors, four on each of the regional and national levels and two on the international level. In most cases, it practices a single sourcing strategy.

Photon Inc. is not only engaged in interorganizational cooperation in research and development and (fab-less) production, but is very active beyond its immediate inter-firm development and production networks. Since only few standards for electro-optical parameters for internet applications exist, Photon is active in several "technical cooperative organizations" (Rosenkopf, Metiu, & George, 2001) like the optical internet working forum where standards are developed and negotiated. On the network level, Photon participates in multisource agreements with competitors (and some customers) in order to fix the functionality of the products developed and produced and in order to expand the potential markets. Many quality risks, however, remain, even if the suppliers, fabs and even the research institutes are qualified to ISO 9000.

The managers of Photon Inc. typically face two problems in their interorganizational development and production activities. In the case of Photon, these problem areas constitute the very central tasks of network management. First, and perhaps foremost, the managers have to tightly couple activities of agents of different societal spheres, the economic and the science sphere in particular. Each of these spheres exhibits its own typical sets of rules and resources. Joint activities, for example, are faced with different logics of gratification: researchers are gratified in their community and with career opportunities for early publication of exiting research results; actors of the economic sphere, by sharp contrast, are remunerated

for communicating research results only after they have been protected by patents that insure income flows to their company.

Secondly, managers have to develop and establish quite diverse effective dyadic relations with different network actors (venture capitalist, start-ups, suppliers, research institutes), but at the same time need to organize and manage these relations as parts of a much more complex network. This requires network managers to balance cooperation and competition, autonomy and dependence, trust and control, as well as the unity and diversity in their interorganizational practices. As mentioned above, the management of inter-firm networks involves the (re-)selection of network organizations (e.g., suppliers, research institutes), the allocation of resources among the network agents, and so forth. All these management tasks will—and have to—reflect the need to balance such tensions and contradictions.

Since Photon Inc. is a small start-up firm with highly restricted capacities for organizing the network, its managers are very much engaged in network management practices. Nevertheless, given the restrictions on and other demands for their time, they are limited in their ability to fully engage in these activities, which constrains the development of the network. Given the limited capacities for discursive reflexive structuration of the network, management of the network must go beyond the activities of the strategically placed Photon Inc. and its managers to include the management of other network organizations as well. While consultants could extend these capacities of the network organizations, until recently none of the member organizations has contracted with external experts in these matters.

The managers of all member organizations manage the inter-firm network by referring to existing rules of signification and legitimation and resources of domination. And by referring to these rules and resources, they either reproduce or transform them. In essence, by referring to the rules and resources, managers not only influence the practices inside their network, but also in the organizations and the field they act in—and vice versa. Since the Photon network is still rather young, the managers have to refer to rules and resources of their organizations and, in particular in the case of start-ups, of the organizational field.

Mutually Developing OpTecBB and inter-firm Networks: The Recursive Interplay Between Two Levels of Networking

Photon Inc., as a member of a regionally-based, inter-firm network, typically interacts with roughly a dozen partners in the Berlin-Brandenburg area. Ten of these firms and research centers are members of the

OpTecBB, like Photon itself. In addition, one of the top managers at Photon is a member of the board of OpTecBB. Photon, therefore, contributes in a threefold way to the development of the OpTecBB network of competencies: (1) through the development of its regional inter-firm network; (2) through the activities of the OpTecBB member firms in this network; and (3) through its activities as an OpTecBB board member.

OpTecBB, in turn, plays an important role for the development of Photon's inter-firm network, making the relationship between Photon and OpTecBB a recursive one. First, the embeddedness of Photon in the development of OpTecBB was one of the reasons that venture capitalists decided to finance the start-up. Second, OpTecBB serves as the regional broker for research grants of the federal German program of OptecNet and assists its members in formulating grant proposals on the European level, both of which are important factors especially for small start-ups. Third, and this is undoubtedly the main task of OpTecBB, it serves in many ways as a communication platform for the members. The exchange of information among member firms is augmented through four specialized groups within OpTecBB, one of them that specializes in developing photonics for the internet.

Firms like Photon Inc., that have specialized in photonics for the Internet, exchange information and data among themselves in recurrent meetings of this specialization group. Even if the exchange of important information remains critical (since several firms do cooperate within OpTecBB and yet remain competitors), the professional evaluation of technical and market opportunities is enhanced by OpTecBB. The activities within the specialized groups are, therefore, highly valued by most of the organizations of OpTecBB.

Beyond the flow of information, managers and firms intensify their communication among themselves and thereby generate opportunities to initiate, build up or intensify interorganizational cooperation in established or newly constituted fields of activity. In addition, the competencies of the participants are potentially augmented on different levels if they participate in activities of OpTecBB. This augmentation of competencies is related to both rather specific technical issues of high-edge technology and to the evaluation of market opportunities. More general questions are also concerned, such as problems related to patenting as well as to competencies concerning network management—discussed, for example, as best practice cases among a broader community of members of OpTecBB during their annual general meetings.

The role of managers is very obvious, not only on both the network and the field level, but also in the recursive interplay of these levels. The role of consultants (or, more generally, external experts) is still limited to the field level, that is, OpTecBB, but acknowledges the importance of this recursive

interplay of the inter-firm and the network field level, which, in the case of photonics in the region under investigation, is rather heterarchical. External experts can then advise the NAO to sustain the development of network structures and practices that foster communication among the member firms, thereby helping to initiate or intensify networking among the OpTecBB members. In this case, this is made possible by an explicit, recursively refined five-year development plan, which starts with a focus on exploring and creating opportunities for networking, and shifts more and more to exploitation issues during this time frame (Koza & Lewin, 1998). This plan concentrates on the development of several network institutions (see above), which are the medium and the result of the reflexive structuration of concrete inter-firm networks and the regional field. They are a medium since they are likely to support the development of shared sets of rules and resources that, in turn, sustain actors to initiate or intensify the networking, the development of the organizational field, and the more reflexive interplay of both. They are, at the same time, a result of these processes if and when network or other agents use the institutions to act and to form the reflexive structuration of social systems on the network and the field level.

It is still an open question whether consultants or other external experts may get involved, not only on the field level, but also on the level of concrete inter-firm networks. If these players become involved, they should acknowledge that they are confronted with more subtle and multilevel power structures that are not so obvious as those in hierarchical organizations. Moreover, they are likely to act on behalf of several clients that often operate in a multitude of interorganizational networks, which are constituted by different organizations and embedded in interorganizational fields.

CONCLUSIONS

Reflexive network development focuses, first of all, on the structuration of the enduring set of interrelations among network participants and, secondly, on the recursive interplay of these relations with the organizations and the organizational field(s). One of the main tasks with respect to developing these networks is to open up the all too narrow economic orientations of the participating organizations and to replace them with an orientation toward more enduring economic interactions and relations based on reciprocity. The possibilities to structure the set of interrelatedness reflexively are thus multiplied. This opening up of possibilities, however, has to be followed by reflexively excluding several alternative actions in order to avoid overwhelming complexity. Major topics in this respect

include the selection of appropriate partners, the allocation of necessary resources, the formalization and evaluation of the network practices, and the constitution of network boundaries in relation to the enduring set of interrelations among the network firms.

Developing and managing a network on the inter-firm level, however, has to consider the organizational as well as the organizational field level, since it can be sustained by recursive reference to the sets of rules and resources on these levels. This is especially true in heterarchically structured organizational fields and of inter-firm networks of start-ups, as in the case investigated in this chapter. The agents have to find out ways to accomplish the constant examination and reformation of their network practices in the light of incoming information about those very practices, and the development of the organizations in the network and the field. To accomplish this task, more capacity for reflexivity is needed, certainly on the network and the field level, but also on the organizational level. This capacity can be created by managers—with or without the help of external experts—building up corresponding network institutions.

For consultants intervening in these complex inter-firm networks, it would be important to sensitize managers to the process of structuration and the logics underlying network (re-)production. Moreover, they could and should present to their clients typical paths of network development and practices of network management. Beyond sensitizing clients to these dynamics, consultants can facilitate and assist network managers in building effective, reflexivity-enhancing institutions.

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CHAPTER 9

BUILDING EFFECTIVE INNOVATION NETWORKS

Enhancing Cooperation in Public-Private Partnerships[1]

Eric Davoine

In an endeavor to increase the speed of product creation in highly competitive environments, innovation networks (Aldridge & Whetton, 1981) have emerged as a key form of research and development (R&D) organization. Such networks enable companies to create more relevant knowledge (Freeman, 1991; Nonaka & Takeuchi, 1995) as well as to share costs and other resources. The creation of new medicines to combat cancer based on genomics, for example, may require innovation networks consisting of several partners, including universities, pharmaceutical companies and research centers. In particular, most governments in Organization for Economic Cooperation and Development (OECD) countries have facilitated and stimulated R&D partnerships between the public research base and private industry (Cervantes, 1998), in order to increase the pace of product innovation in their national economies.

As a new form for carrying out and financing critical research streams, European governments have recently committed billions of dollars to support and nurture these R&D networks. While these public-private partner-

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ships (PPPs) have seen exceptional success, evaluating the return on these investments and improving the outputs of PPP networks have become crucial questions for these governments (Georghiou & Roessner, 2000), questions that can only be partly answered by "classical" economic approaches.

This chapter explores the major organizational difficulties involved in PPP networks and presents some management consulting tools that can help to evaluate and improve their efficiency and effectiveness. The first part of the chapter examines the recent developments of PPP networks in the technology policies of OECD and European countries, focusing on what PPPs are, why they have become a major instrument of technology policy, and some of the inherent difficulties and dysfunctions of PPP networks. The second part of the chapter presents network evaluation and structuring tools that can be used to minimize these dysfunctions. These tools are currently being discussed, developed, and tested by a European project team within an action research project called COVOSECO, financed by the European Union (Strata Programme).[2] The discussion focuses on how management consulting interventions based on action research empowerment methods and the socioeconomic management approach can enhance both the functioning and evaluation of these networks.

PPP INNOVATION NETWORKS: BACKGROUND, OUTPUTS AND DIFFICULTIES

According to Cervantes (1998), public-private partnerships can be defined as "any innovation-based relationship whereby public and private actors jointly contribute financial, research, human and infrastructure resources either directly or in kind." As such, PPPs are more than a contract research mechanism for subsidizing industrial R&D. They represent the vector of a new paradigm of technology policies, in which both the private sector and market play a major part in the new definition of government-financed research orientations.

These PPP networks are not entirely new in OECD countries. Erstwhile engineering cooperation between universities and industrial companies has existed since the nineteenth century in countries like Germany, France, and England. The Japanese technology policy of the 1960s and 1970s—driven by Japan's Ministry of International Trade and Industry (MITI)[3]—developed a broad range of new R&D partnerships that were considered a key factor in creating the success of the Japanese industry in the 1980s. This strategy led most of the OECD countries to develop similar policies in order to increase the competitiveness of their national industries. For the governments financing PPP networks, a basic goal is to enhance cooperation between public institute researchers and private

companies, facilitating the transfer of research innovations, and promoting research output for the market. Behind this effort is the need to facilitate communications between research actors who have not traditionally communicated with each other, because of the compartmentalization of research disciplines and/or the cultural barriers that exist between private industry and public research institutes.

Types of PPP Networks

There are different kinds of PPPs, and governments develop their own schemes and models according to their research and technology policy history and new priorities. In accordance with France's strong traditional industrial and technology interventionist policy (Haudeville, Héraud, & Humbert, 1995), for example, since 1998 the country has developed a broad innovation project framework covering almost all research sectors (ranging from biotechnology and pharmacy to microelectronics). This approach selects public-private innovation projects and allocates grants of up to several million dollars per project (Davoine, 2001). In Germany, such programs have existed at a federal level since the 1990s, but only in specific research fields, like automation, computer-assisted manufacturing, vocational education and training. Numerous other programs and initiatives are being developed at a regional level by the governments of the German "Länder" (Moon, 2001). In addition, PPP founding programs or frameworks are often offered to small and medium-sized enterprise (SME) initiatives, for instance, the Small Business Research Initiative in England designed to increase the demand for R&D from SMEs (James & Eastcott, 2001), and the ALMI-Enterprise support program in Sweden (Floren & Hofmaier, 2001).

For private network partners, the main incentive of these projects seems to be the reduction of research costs due to new repartition/sharing of resources and investments with research institutes. Another incentive is the development of synergies with partners that own complementary assets (Tassonne, 1995). Several studies (see the review in Cervantes, 1999) show that the mutualization of information and knowledge within the network also seems to be a major incentive for network partners, because the acquisition of information helps network members to reduce uncertainty and can, for instance, lead to the reduction of the time needed for exploratory research.

On the whole, the general objective of such networks is the development, as well as the commercialization, of new products, services, or product and/or process improvements—from the creation of a new prototype or simulator, to new technological subsystems, to process improvements

and technology integration. Additional objectives might include developing new standards and references (de jure or de facto), developing technical and management knowledge and skills among network members, and disseminating and transferring information and technology to other actors or to the environment (see Bach, Ledoux, Magnaval, & Pero, 1994). The government financing the project also has a variety of objectives: increasing the competitiveness of the national industry or a specific industrial sector, creating or securing jobs, developing infrastructure, or even attempting to enhance the quality of life.

Underlying Problems in PPP Networks

While these networks have significant potential, there are a number of inherent problems and challenges to overcome. These partnerships are not absolutely cost free for participants. In fact, PPPs involve significant transaction and information costs to simply get started (e.g., to select partners or to prepare the project's administrative documents) as well as organizational costs during the course of the project. In addition, a number of underling obstacles and dysfunctions can damage the smooth functioning of the project.

Cooperation between actors in such innovation networks is not natural and often results in mismatches or failures (Cervantes, 1998). The first obstacle in building effective PPP networks concerns the wide diversity of network member objectives. As noted above, there are a variety of objectives among network members, from the network's explicit objectives (the main outputs) to the general policy objectives of the government cofinancing the project (indirect effects of PPPs). As network evaluations (cf. Bach & Georghiou, 1998; Chisholm, 1998; Georghiou & Roessner, 2000; Rauner et. al, 1995; Tassonne, 1995) highlight, network member conflicts are the logical consequence of this diversity of goals and objectives. Beyond the common general objective of the network project, it is easy to imagine that each network member may follow other objectives or hidden agendas, as may other actors or the even the sponsoring government. Such objective-related conflicts often emerge from the following realities and dynamics:

- network participants typically start from the perspective of their own organization objectives and interests;
- network participants may be keener to develop their own knowledge and relations than to transfer the network's knowledge and output to their organization;
- public and private research do not have the same time horizons—influenced by different expectations, different goals, and different career paths of the actors;

- participating in the network implies, for most of participants, a reduction in their decision-making autonomy and their decision-making power—especially as far as the research program is concerned—and an increasing dependence on other participants;
- participants' individual interests may lead them to offer a minimal contribution to the network while trying to get the most out of it;
- involvement in network functions does not occur continuously, therefore vision and general goals via ongoing involvement are lacking; and
- some participants may change their strategic orientations and their expectations of the network during the course of the project.

The Organizational Complexity of PPP Networks

Private-public cooperative projects encounter more difficulties than R&D projects with actors belonging to a similar organization because of the higher complexity of network configurations. The existing literature on networks and cooperation between organizations across different sectors (e.g., public, private, labor, and education) or different levels (e.g., local, state, federal, basic and higher education) points to common communication and organizational problems (cf. Chisholm, 1998; Rauner et. al, 1995; Tassonne, 1995). One set of problems is related to the lack of hierarchical structure within the network:

- network participants typically start from the perspective of their own organization and project, and not from the perspective of the network's virtual organization;
- network members participate voluntarily in network activities, making it difficult to introduce leadership and directivity;
- members relate to each other as equal partners—hierarchical structures, formal roles and role sets are generally not present to constrain and guide activities;
- the conceptual nature of networks gives them an ephemeral quality that members often have difficulty grasping; and
- as representatives of organizations that do have hierarchies, network members are often influenced to act—or react—against the interests of network objectives.

Another set of problems is related to communication difficulties between network members or between the network and its represented organizations:

- network participants may consider some information too confidential to be communicated to other participants;
- network participants do not understand each other because of the lack of common language or common codes of (tacit) knowledge; and/or
- the persons participating in the network project, representing their organizations, have communication problems within their own organizations.

Finally, the people participating in the network project may be representing their organizations because of a specific expertise or the simple fact that they are available, rather than due to their authority or hierarchical position. Thus, these individuals may not systematically have the necessary decision-making powers within their own organizations. As a result, implementation of network-based decisions can be slowed down because of the necessary consensus between the network actor and his or her sponsoring organization.

While these problems identified in PPP evaluations are illustrative rather than exhaustive lists, they provide (1) a good overview of the types of difficulties encountered by network members in the development of PPPs, and (2) underline the need for management tools and consulting interventions to help tackle these difficulties.

INTERVENING IN PPP INNOVATION NETWORKS: THE COVOSECO PROJECT

The types of network-related difficulties identified in the first part of this chapter influenced the scientific funding program of the European Union in Brussels to fund a series of management research projects. These initiatives are focused on developing new consulting methods and tools to evaluate and improve the quality of PPP network functioning. One of these projects is COVOSECO, a public/private network project with six project members:

- four university-based research institutes: ITB (project coordinator) at the University of Bremen (Germany), ISEOR at the University of Lyon (France), Center of Work Sciences at Halmstad University College (Sweden), and the Center of Management at the University of Maribor (Slovenia); and
- two consulting companies: SIC in Bremen (Germany) and IAGO in Leeds (Great Britain).

COVOSECO's objective is to contribute both to the evaluation and improvement of public/private partnerships in the fields of science and technology, particularly in research and technology development (RTD). The major focus lies in enhancing collaboration between universities, other research bodies, and business firms. The project's main objective is to develop, test, and disseminate an evaluation tool that includes manuals on evaluation principles and procedures, practical hints for mediators, and software designed to assist in the evaluation processes. This thematic framework is also intended to provide recommendations for decision makers at various levels, from national and regional governments, to the innovation agencies, to the universities and companies involved in the projects.

The duration of the project is scheduled for 24 months (2001–2003) and is segmented into a sequence of five work packages. Overall, the structure of the work plan consists of the development, testing, and dissemination of an evaluation tool for assessing PPP networks. The central methodology comprises the collection of insights and experiences of different evaluation approaches offered by partners and multiplier organizations, and documented and accessible evaluation tools and methods developed by relevant groups and individuals in both the United States and Europe.

While different evaluation methods and consulting tools have been reviewed and analyzed by the overall project team, the chapter focuses on the main approaches proposed by two of the project members: ITB and ISEOR. Both approaches and tools contribute to our understanding of and insight into the evaluation and management of networks through different but complementary perspectives.

The ITB Approach: An Action Research Empowerment Tool

The ITB at the University of Bremen[4] is one of the largest German research institutes in the field of Vocational Education and Training (VET). Research interests are focused on the relationship between technology, new forms of work organization and VET, and are inspired by the idea of shaping work and technology from an educational point of view.

The ITB intervention is called the Empowerment Evaluation Tool (Deitmer, 2001) and was developed in the 1990s for the evaluation of public/private regional projects in the field of vocational training (Deitmer, Endres, Manske, & Riedel, 1997; Rauner et. al, 1995). As a participatory evaluation method (see also Chisholm, 1998), the tool follows five principles:

1. ***Participation***: all network actors are involved in the evaluation process.

2. ***Discourse***: communication between the actors is precisely analyzed and the evaluation results are discussed intensively in order to avoid misunderstandings.
3. ***Reflexivity***: communication among network actors should be improved in order to create space for self-reflection and self-critical reinterpretation.
4. ***Multiple perspectives***: viewing and analyzing the evaluation subject matter from a plurality of perspectives is a way of reducing the risk of erroneous interpretation.
5. ***Sustainability***: through evaluation, key objective is to create and foster sustainable processes.

The evaluation is based on a five-step process in which all the network actors participate. The first step is the *identification of quality indicators* to evaluate the PPP network through interviews with all network members (which can be done through individual interviews as well as through group discussion sessions). Based on this information, an evaluation questionnaire is produced by the consultants and given to the network actors in order to prepare the evaluation workshop. The second step is the *evaluation workshop* itself. In this phase, network actors discuss the project outputs. The consultants facilitate the discussion and identify consensus, dissents, strengths and weaknesses, as well as critical points expressed. The third step is the *analysis* of the workshop discussion, carried out by the consultants, who produce graphical representations of the evaluation results. The fourth step is based on *feedback* and *discussion* of the results thus far with the network participants. During this phase of the intervention, the consultants present the results and facilitate consensus agreement on the evaluation and necessary improvements.

Finally, the fifth step is the completion of the *final project management report*, which includes the quantitative evaluation results as well as the main discussion points reached through the evaluation session. On the basis of this quantitative and qualitative information, the consultant produces a SWOT (strengths, weaknesses, opportunities, threats) analysis of the network project as well as recommendations focused on structuring the next phase of the project work. Because the same methodology has been used in approximately 50 network cases to date, the consultant has also the opportunity to make comparisons—a sort of benchmarking—with the way other network projects function (or dysfunction).

Although this approach is primarily an evaluation tool, it can have a structuring effect and a positive impact on network functioning. At the end of the first stage, for example, the framework helps participants to: (1) clarify common project goals and individual objectives, especially the implicit

ones; (2) clarify the expected contributions of the different actors and possible synergies; (3) define indicators in order to measure output at the end of project's duration; (4) express and point out specific difficulties of the project; and (5) facilitate dialogue between participants, leading to a better project- and quality-oriented work atmosphere.

The "Anechoic Chamber" Project

As an illustration of the ITB approach, this section will examine the "Anechoic Chamber" network project, a cooperative development venture between a French university and various actors in France's automobile industry. As a case study within the overall COVOSECO project, the main goal was to develop a studio to test acoustic noises and related nuisances in motors and vehicles. Following an evaluation of the region's industrial needs, it was decided that the project would use the infrastructure available at the local university, updating the facility to reflect state-of-the-art standards and meet the requirements of the industrial partners. The project had five network partners: the regional government (investor), one major French motorcycle producer (investor), the university, and two consulting agencies, one that specialized in acoustic expertise and another in regional economic development. The project itself began in 2000. The first phase of the project—updating the local infrastructure and matching the technical requirements of industrial partners—ended in 2002 with the signing of the contract between the partners for the future utilization of the chamber.

The evaluation took place at the end of the first stage with representatives of the project partners. Using a five-dimension questionnaire (goals, resources, project management, partnership development, and communication and learning), the group initially assessed the quality of their process on an individual basis. As a group, they then explained and justified their scores, and through discussion reached consensus on the salient issues. Figure 9.1 illustrates the scoring on the five dimensions—the dark grey surface represents the best scores and the light grey surface represents the worst scores attributed to the project.

Based on the group discussion, a number of strengths and weaknesses were identified. Main strengths included:

1. the fact that general goals had been reached in spite of many difficulties;
2. good coherence between individual and general goals;
3. good synergy between partners in terms of competence, ability to work together, development of trust, and fair repartition of contributions and retributions; and
4. good support by the investors, especially during a critical phase of the project (e.g., the main investor agreed to reevaluate project costs)

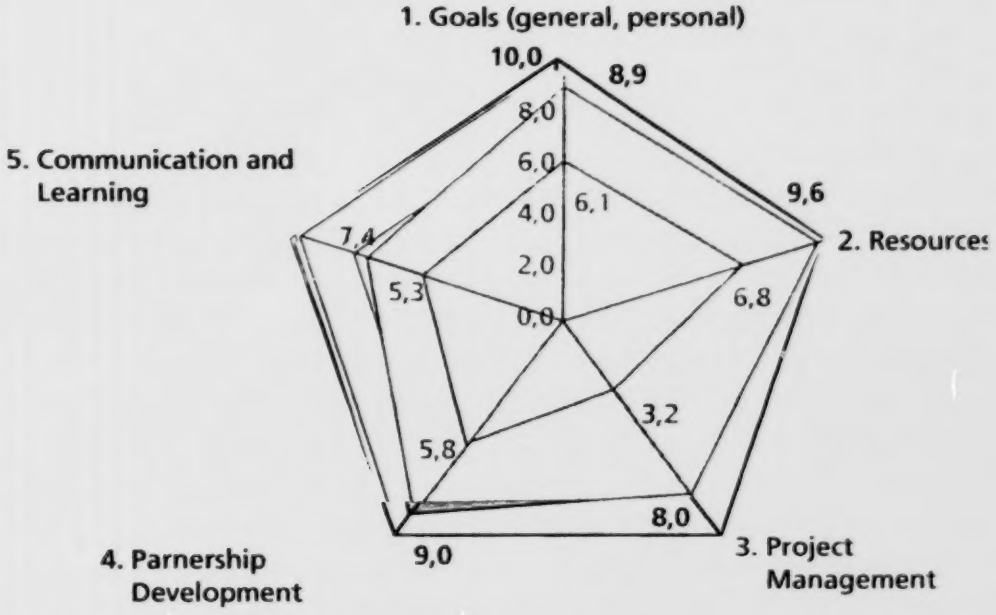

Figure 9.1. ITB Evaluation Spider. Reproduced with permission of COVOSECO © 2002

At the same time, several weaknesses were identified:

1. time delays (roughly six months) due to different strategic priorities of one partner and insufficient authority on the part of the other partners to solve the problem;
2. the need for a reevaluation of project costs due to underestimated cost estimates by a different consulting agency at the start of the project;
3. the fact that network member competencies were often not available at the time they were needed due to the demands of parallel projects; and
4. different interpretations of the legal administrative framework in the design phase of the building (probably related to the different administrative cultures of the partner organizations).

Comparison with other PPP project evaluations suggested that the self-assessment of the anechoic chamber project was very positive and participants reported high levels of satisfaction with their efforts. During the evaluation workshop, network members explained their satisfaction by underscoring that their general goals—in both temporal and financial terms—had been achieved. At the same time, they observed that they could have improved their human resource (HR) planning, and that they

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needed to better evaluate and formulate the learning effects of the work together. The closing discussion during the feedback session, which was led by the consultant, attempted to build on the learnings from the project and focus the group on the next phase of the project.

ITB Assessment

Although the ITB approach was quite useful, the process has its limits. The basic focus of the tool is self-assessment, and the objectives, contributions, and outputs can only be clarified and fairly assessed when participants accept the rules of transparency and cooperation. As such, the use of this particular tool is easier in projects that function well and where the participants are cooperative. Implementation can be problematic in projects that have major difficulties, for instance when a member organization changes its priorities and does not want to invest many resources in the project. Even in this type of situation, however, the workshop experience would uncover conflicts and problems.

A second important point is that the tool has been developed in Germany, a country where the national work culture is much more dialogue-oriented, especially between hierarchical levels, compared to other work cultures (Hofstede, 1990). In the French work culture, for example, the perceived distance between hierarchical levels can limit discussions between actors (especially between network actors who do not have the same hierarchical status). Thus implementation of the ITB approach would probably be more difficult in southern European countries, which are less dialogue oriented. This same concern can be applied at the organizational culture level—some companies are more accustomed to these kind of exchange-based instruments than others.

During the analysis of the COVOSECO project, evaluation session participants raised two other concerns. The first issue was the "time effect": a single evaluation at the end of the project leads network members to focus on effectiveness (relative to reached and nonreached goals) more than on efficiency (relative to the rational use of resources). In the anechoic chamber case, the participants expressed a positive self-assessment of their project management, because of their relative effectiveness in achieving set goals. As far as the efficiency dimension was concerned, however, additional financial and economic data gathered by the consultant raised questions about how project resources were being utilized.

The second issue raised by the participants focused on the need for additional tools *after* the feedback session. They expressed the need for approaches and methodologies that would help them restructure project-related work and define precisely the relationships between project members. Even if the evaluation session had consciousness raising and learning impacts on the participants, some of them missed having a more directive approach to resolving identified problems. As an evaluation participant

noted, "Otherwise, it is like being told that you have a cancer without being given any more chance to get in contact with your general practitioner."

The ISEOR Socioeconomic Diagnostic Approach

Considering the limits of the ITB tool, the ISEOR approach, which is based on a socioeconomic approach to management, provides a complementary perspective.[5] This approach is based on studies of the compatibility between social and economic objectives of the organization. The framework considers any organization as a network of conflicting actors who have their own logics of action, their own backgrounds, and their own objectives. These conflicts within the organization result in dysfunction costs that managers are not aware of—"hidden costs and hidden performance" (Savall, 1975, 1979; Savall & Zardet, 1987; Savall, Zardet, & Bonnet, 2000; Savall, Zardet, Bonnet, & Moore, 2001)—which account for poor organizational effectiveness. This dynamic is often intensified in PPP networks.

The tool proposed by the ISEOR approach is a diagnostic method focused on uncovering these network dysfunctions (Savall, 1979; Savall & Zardet, 1987). As part the intervention, the management consultant interviews the members (actors) in the network, focusing on their expectations and the dysfunctions they perceive. Table 9.1 provides an illustrative set of categories and foci that are used to formulate interview questions. The contents of the interview notes are categorized and fed back to the actors. The underlying idea is to create a "mirror effect," in essence presenting the information to the actors in their own words in order to create a common set of issues. During this state of the intervention, the consultant also systematically presents the dysfunctions observed, again drawing on the data generated by the actors, to increase their awareness of network-related problems.

Table 9.1. ISEOR Diagnosis of Network Organizational Dysfunctions Framework Reprinted with permission of ISEOR ©1985

Themes/Main Performance Criteria	*Sub-themes/Sub-criteria*
Network organization	• The network's material and financial resources
Network conditions	• Members' workload (within and outside the network)
	• Work atmosphere and work interest
	• Definition/repartition of responsibilities and tasks (member/co-ordination)
	• Organizational chart
	• Members' co-ordination/team's work autonomy
	• Rules and procedures

Table 9.1. ISEOR Diagnosis of Network Organizational Dysfunctions Framework Reprinted with permission of ISEOR ©1985 (Cont.)

Themes/Main Performance Criteria	*Sub-themes/Sub-criteria*
Time management	• Respect for deadlines
	• Planning and scheduling of tasks
	• Use of time
	• Factors that disrupt time management
Communication – Co-ordination – Cooperation (3Cs: internal focus)	• Information circulation/diffusion
	• 3Cs within the management/co-ordination team
	• 3Cs between members and the co-ordination team (vertical)
	• 3Cs between network members (horizontal)
	• The network's internal 3C system
Communication – Co-ordination – Cooperation (3Cs: external focus)	• Information circulation/diffusion in the network / environment
	• Relationship of project officer with other departments in member organizations
	• Relationship of project officer with management team in member organizations
	• The network's external 3C system
Know-how and knowledge management	• Knowledge/know-how & position of project-member/ co-ordination team
	• Know-how distribution within member-organizations
	• Identification of training needs within the network
	• Identification of training needs outside the network
	• Training & technical changes within the network
	• Training & technical changes outside the network
Definition and implementation of strategic objectives	• Definition of strategic network objectives
	• Members' explicit and potential conflicts in the definition of strategic objectives
	• (Network stakeholders' conflicts of interest)
	• Strategy actors (inside and outside the network)
	• Management information systems
	• Strategy implementation: organization, tools & means
	• Evaluation of network strategy implementation

After the first diagnostic interviews, a second series of interviews (in individual or group form) can be carried out in order to assess the network's opportunity costs (hidden costs). These hidden costs are catego-

rized into the following components (see Savall & Zardet, 1987), with illustrative examples from the Anechoic Chamber project:

- **Overwages**, which result mainly from a shift in functions. In the Anechoic Chamber project, this problem occurred when network members performed lower value-added tasks that could have been done by subordinates or another partner in the network.
- **Time wasted**, which reflects working time spent without added value. Project members spent time trying to resolve a network dysfunction when that time could have been used more productively on project tasks—for instance, trying to convince investors that the budget, which was approved by the first group of experts, was far too low to make the project work.
- **Overconsumption** of resources that could have been avoided. In the project, members purchased measurement instruments that were already available in the infrastructure, but were not classified.
- **Nonproduction**, which reflects a disruption or stoppage of the work process. Due to different strategic priorities of one of the network members, for example, the work of another network members was delayed for six months.
- **Noncreation of potential gain**, in essence the opportunity costs associated with not investing in future profitability. In the Anechoic Chamber project, network members avoided investing in communication systems because it was not planned as part of the initial investment.
- **Risks**, which reflect possible future costs generated by current dysfunctions. Without intervention, problems in the first stage of the project could undermine future network member relationships and create contractual difficulties during latter project phases.

Using the ISEOR methodology, the management consultant also provides the group with an "expert opinion," which helps the actors to better realize the root causes and reasons underlying these dysfunctions. A project group is then implemented, consisting of several "theme" teams, where the actors develop solutions (participation) to improve the efficiency of the network. One of the theme teams, for example, focused on improving communication and defining a common language within the network.

In the case of large networks, two distinct levels of project groups can be designed:

- *Horizontal action* at the top of the network (or with the participation of the main leaders of the network). In this case, the diagnosis aims at improving the general rules of the network's functioning (e.g.,

"Are needed actors missing from the network?" "Are there overlaps between actors in the network?")

- *Vertical action*, consisting of more precise and concrete actions in specific parts of the network or at the level of a given actor in the network (e.g., how to improve task delegation and time management for those members of the network who have to cooperate closely).

After agreement has been reached on the solutions proposed by the project groups, the recommendations are implemented and an assessment is made of the outcome, both in terms of economic and social performance. Evaluation is critical in this improvement process, because (1) the actors in the network clearly see that they partly share common goals and (2) that cooperation results in enhanced performance for each of them, which in turn reinforces the will to cooperate.

The ISEOR diagnostic process helps participants to identify the main dysfunctions of the network and to clarify the objectives, roles and contributions of network actors. It provides them with a framework to focus on both network effectiveness (results) and efficiency (resource use). This socioeconomic emphasis allows the consultant to facilitate the process of strategic and political decision making (Savall & Zardet, 1995), through presentation of expert opinions in such areas as:

- the rules of the game in the network;
- the compatibility (or incompatibility) between the objectives of the individual members of the network compared to overall network objectives; and
- the relative ambition of the project and possible discrepancies between objectives and means.

Socioeconomic Approach Assessment

A basic concern with the ISEOR approach is the amount of time involved in interviews and observations. Secondly, since the hidden cost calculation method has been developed for classical organization forms, this type of analysis and calculation is more difficult to carry out in innovation networks compared to traditional business organizations such as manufacturing plants. Nevertheless, the network specialists in the COVOSECO project recognized that this approach could make participants in PPP networks more cost conscious, which is one of the objectives of the tool.

Another contribution of the ISEOR evaluation method lies in its link with other organizational and managerial tools, which can also be used in further interventions to structure the networks. With regard to the network dysfunctions and difficulties discussed earlier, the framework is linked to different socioeconomic management tools that can be used to structure (or restructure) a network. The ISEOR method proposes six management

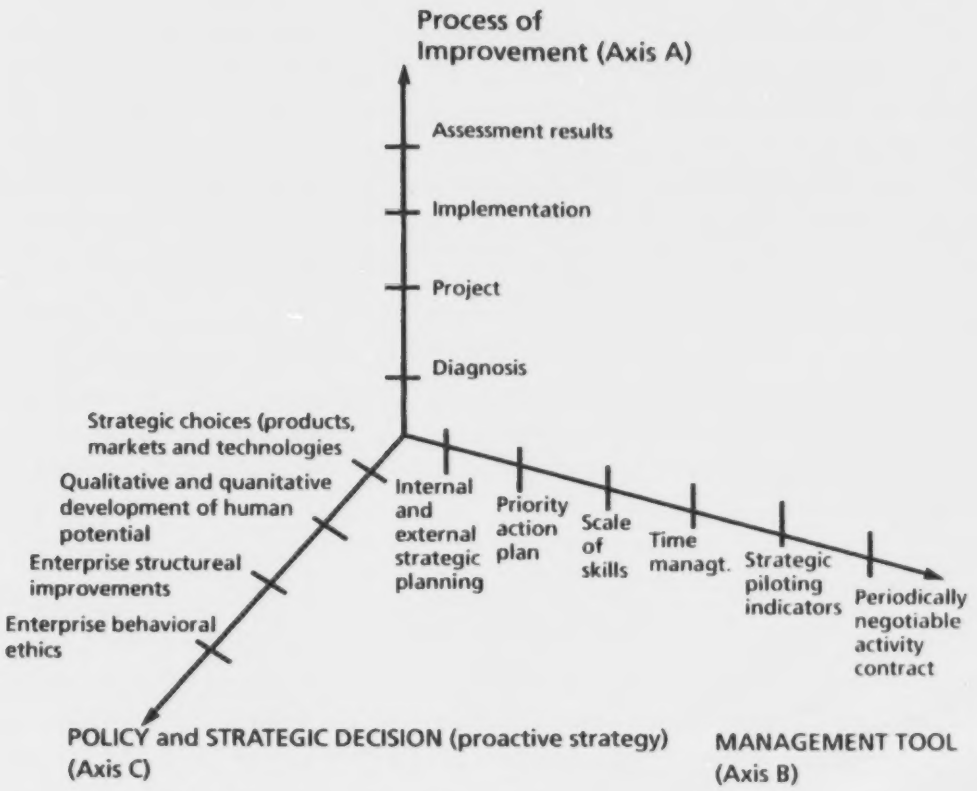

Figure 9.2. The Three Axes of ISEOR's Socio-economic Intervention. Reprinted with permission of ISEOR © 1982

tools (Savall & Zardet, 1987) that the management consultant can bring to the network (based on the "three axes model," as shown in Figure 9.2):

- *Time Management*: Time schedules and time evaluation tables can be used to (1) eliminate time spent on low value-added tasks and (2) devote more time to development actions. Such specificity allows participants to rigorously synchronize their actions. In the Anechoic Chamber case, a classical graphical representation of the work to be done would help network members to better coordinate their actions.
- *Table of Skills*: The table of skills provides an overview of the experience, knowledge, and skills of network participants. Each member of the network can clearly check his or her added value in terms of core competencies in the context of the entire set of competencies required by the network. In the presented case, such a table would clarify the expertise and potential contribution of each member, helping to also clarify potential learning opportunities. Network

members are able to quickly check where they could access needed competencies for project tasks.

- *Strategic Piloting Indicators*: These reflect appropriate qualitative and quantitative indicators for short-, mid- and long-term performance. Focus is placed on both immediate results and the creation of potential gains. In the Anechoic Chamber project, evaluation participants began to define such strategic piloting indicators for the second project stage, focusing on indicators for intangible investments, profits and the outcomes each participant contributes to the network.
- *Periodically Negotiable Activity Contract*: Specific activities are negotiated between members and the network coordinator concerning what each network member can offer to and gain from the network (contribution/yield, objectives/resources). This process not only helps to define the common objectives of the network, but also the improvements each member of the network has to carry out in order to enhance the performance of the whole. Due to the interdependencies between network members, any weakness on the part of a given member of the network may result in a global mismatch and failure of the entire project. In the presented case, this type of activity assessment was seen as an important step, especially in terms of developing a contractual dimension in network relationships and defining the "rules of the game" in order to minimize further dysfunctions.

All these tools, which are inspired by the classical ISEOR approach, seem to respond to the main network dysfunctions identified in the first part of the paper and could be implemented in a very complementary way with the ITB evaluation methodology.

CONCLUSION

PPP networks are rapidly becoming a major instrument of technology policy. Within PPP networks, research actors can share costs, information, and knowledge, develop new synergies and reduce environmental uncertainty. At the same time, assessment reports of PPP network projects pinpoint many difficulties and dysfunctions. The main difficulties are due to the broad diversity of interests, objectives, and identities on the part of actors, as well as to the high complexity of the network organization itself.

In an attempt to tackle these specific PPP network difficulties, this chapter has presented two different consulting approaches and sets of management tools that can help PPP networks reduce their dysfunctions and improve their organization as well as their output. Both approaches have been discussed and implemented in COVOSECO case studies and can be

seen as complementary. The ITB consulting tool, as a method of empowerment evaluation, is based on principles of participative action research. Beyond the evaluation, the ITB tool can be also very useful in developing a common perception of goals and a cooperative, communicative, project-oriented culture among network members. The ISEOR diagnosis tool, based on the socioeconomic management approach, focuses more on underlying dysfunctions and costs and can help the network develop a deeper awareness of efficiency and costs.

Both methods can be seen as complementary in a process of analyzing and restructuring network-building processes. The two approaches reflect the contribution that external consultants can make in facilitating the assessment of work processes, especially in terms of the network's dysfunctions and untapped potential. The COVOSECO project shows that such methods can contribute to the efficiency of networks on a number of levels. First, external evaluations can help network members to formulate and reformulate their goals, needs, and guidelines in all the phases of the project: the grids, criteria, and dimensions used in the diagnosis and evaluation process can be used as checklists to define quality criteria, goals, and rules. Secondly, an external, neutral point of view is generally useful to detect and to clear potential conflicts or misunderstandings between project members. Objective outsiders can also improve communication around problematic issues. Finally, the evaluation process helps to create a common "performance appraisal culture" for network members, a foundation for common awareness of efficiency (costs) and effectiveness (results). This combined socioeconomic perspective is important in public-private partnerships where the actors may not have the same perception of performance criteria.

NOTES

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2. For further information on this project, see www.itb.uni-bremen.de/projekte/ Covoseco. The COVOSECO project will be discussed in fuller detail in the latter portion of the chapter.
3. Japan's MITI has since been restructured into the Ministry of Economy, Trade, and Industry (METI) to reflect the broader changes in both Japanese society and the world economy.
4. Further information on the ITB at the University of Bremen can be found on the institute's website at www.itb.uni-bremen.de.

5. The socioeconomic approach to management (SEAM) was created in 1973 by Henri Savall, who also established the ISEOR research center. Further information on ISEOR can be found at www.iseor.com

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CHAPTER 10

CORPORATE VENTURING

Is an Acquisitive Strategy a Sustainable Pattern of R&D Externalization?[1]

Michel Ferrary

Technology has been noted among the most prominent factors that determine the rules of competition (Porter, 1985). In the high-tech industry, technological advantages are sustained when competitors cannot duplicate the technology or when the firm innovates faster than its competitors. According to many strategic management scholars, the pace of technological innovation drives the competitive edge in the high-tech sector (see, for example, Abell, 1980; Friar & Horwitch, 1985; Tushman & Moore, 1982; Tushman & O'Reilly, 1997).

Given this crucial strategic dimension of research and development (R&D), large corporations in the high-tech sector have tended to internalize the entire process of technological innovation (i.e., from research activities, to development and product-process development activities, to market development activities). As suggested by Burgelman, Maidique, and Wheelwright (1996, p. 493), this strategic dimension of internalization is specific to the high-tech sector, "while many firms outsource some of their technology through licensing arrangements, R&D with other firms, consortia, strategic alliances, joint ventures, and acquisitions, high-technol-

Enhancing Inter-firm Networks and Interorganizational Strategies, pages 207–221
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ogy firms must source the bulk of their new technology internally through investments in R&D."

Given this perspective, an array of questions begins to emerge. What is successful technological innovation in a fast-moving industry such as the high-tech sector? Can companies keep up with the pace of radical innovation with internally-based R&D initiatives? Is internal research the best way for generating disruptive technologies? Could the externalization of research be an efficient strategy in the high-tech sector? What kinds of capabilities does a large corporation need when it externalizes its research? Why is the embeddedness of the firm in its business environment a strategic issue? What are some of the ramifications of these concerns for management consultants working with companies in the high-tech arena?

The basic premise of this chapter is that in the high-tech sector technological innovation is one of the most important forces affecting a firm's competitive position. In general, the competitiveness of a company depends on its ability to find and market the "right" technology, and companies can develop it internally or by cross-fertilization with other technologies held by the company and/or other firms. The internalization of research in and of itself, however, is not the most effective way to produce disruptive technologies.

Contingency theorists (cf. Burns & Stalker, 1961; Gailbraith, 1973; Lawrence & Lorsch, 1967) argue that the more complex and unstable the firm's environment, the more decentralized the firm's decision-making process needs to be. According to Powell (1990), from the viewpoint of firm, the most decentralized system of governance is reflected in an externalization strategy because individual behavior is not dictated by a supervising agent and no system-wide governance or control is necessary. Markets are a form of noncoercive organization that have coordinating but not integrative effects. As many scholars in economic sociology (cf. Baker, 1990; Degenne & Forse, 1994; Ghoshal & Naphapiet, 1998; Gulati, 1998; Karpik, 1989; Leff, 1979) have shown, the quality of the social bond that the economic agent has with members of its socioeconomic environment explains the success of his actions. Granovetter's (1973, 1974, 1985) concept of "embeddedness" focuses on the impact of the social networks held by individuals or underlain by communities to explain their economic success. Moreover, research in economic sociology has found that social networks often provide ways to circumvent the economic regulation of the market. The ties among members in a network reduce the information asymmetry for trades made between them.

This chapter analyzes how the adherence to traditional approaches to managing innovation have led many large high-tech companies to miss technological breakthroughs. The focus is on how large high-tech companies like Sun, Cisco, Novel, Intel, Nokia, Siemens, and Alcatel externalize

implicitly part of their research by buying start-ups and their technologies. As part of the discussion, the chapter compares the technology management approaches of two of the most important companies in the communication equipment sector, Lucent and Cisco. The analysis focuses on how these companies engage in corporate venturing by using venture capital activities to monitor technological innovation in the market, providing them with greater flexibility than traditional firms where R&D activities are internalized. The chapter concludes with an assessment of the extent to which corporate venturing practices are an efficient means to penetrate the regional network-based industrial system of the Silicon Valley. The understanding of new patterns of R&D externalization can also change the foci of and proposals by management consulting groups. The emerging issue is not only to improve the coordination inside their client's organization but also to improve the interaction between the client, partnering organizations, and the larger socioeconomic environment.

TRADITIONAL PATTERNS OF TECHNOLOGY MANAGEMENT

According to classical strategic-management analysis, there are two main motivations for companies to internalize their research investments. First, many companies prefer to internalize their research investment in order to protect their competitive advantage. Patents, inventions, and discoveries sometimes allow their originators to establish a potential for economic rents. The sustainability of the rent depends on the pace of the diffusion of an innovation. Some factors that slow down the rate of diffusion are patenting the firm's technology and related technology, secrecy, in-house development of prototypes and production equipment, vertical integration into key parts that embody or give clues to the technology, and personnel policies that retain key employees. Technological leaders are also often vertically integrated, building or modifying equipment in-house to protect technology, and are discrete in public disclosures. It is striking how many of the firms known to be secretive are also technological leaders (Porter, 1985).

Second, the strategic management literature argues that the firm is more efficient than the market to coordinate resources and competencies in order to generate innovation from laboratory to market. There are, however, three kinds of difficulties with transferring technology across market interface: recognition, disclosure, and team organization (Arrow, 1974; Teece, 1982; Williamson, 1975). The competitive edge that large corporations often have is their managerial capability to coordinate resources to generate new technology. Companies that have treated process develop-

ment as an integral part of product development are supposed to have accrued tremendous advantages. Connecting a new technology with competencies also enhances the organization's ongoing adaptation, since the linkage improves overall innovation management (Dougherty & Heller, 1994), enables the firm to reconfigure its resources, and provides a way to experiment with new ideas (Burgelman, 1983).

According to this strategic model, large high-tech corporations create important internal laboratories (e.g., Watson Labs for IBM, Xerox PARC for Xerox, Labs Bells for ATT, CNET for France Telecom) for two reasons: protecting their competitive edge and achieving a higher efficiency of internal management of R&D. Nevertheless as an historical analysis of the high-tech industry points out, for each disruptive technology a new range of companies emerged and fueled its growth while existing firms remained champions of the previous technology. For example, leaders of minicomputer technology like DEC, Data General, Burroughs, Wang, NCR, Honeywell or Prime were not those that dominated the PC era—Compaq, Dell, and Apple. Similarly, the major actors of the Internet era (e.g., AOL, Sun, Yahoo) did not come from the personal computer sector.

CORPORATE VENTURING: A NEW PATTERN FOR ACQUISITIVE STRATEGY

The term *corporate venturing* refers to a large corporation that take minority equity in young, unlisted companies that have substantial growth prospects. Companies typically make venture-capital investments for two strategic reasons. The first is to provide advance warning of key technological and market developments that might affect their own businesses. Direct involvement with small businesses gives a company's executives a much better understanding of what is going on in the entrepreneurial undergrowth, insight that cannot be obtained from reading reports and attending conferences. The second reason for corporate venturing is to provide specific opportunities for commercial relationships with the company invested in (through OEM deals, licensing, joint ventures or research contracts). This strategy can sometimes greatly shorten product development times and provide access to expertise the investor does not have.

A large number of disruptive technologies have been nurtured in the Silicon Valley and the venture capital industry is well developed in this region. In 1999, roughly 38 percent of all venture capital funding in the United States came from big companies, signaling a change in the strategic management of technologies. The list of large high-tech companies that adopted corporate venturing is large, including Microsoft, Sun, Novel, IBM, ATT, and Alcatel. The most famous one is Intel. By 1999, Intel's total

portfolio of investments was valued at roughly $4.8 billion and contained about 300 companies worldwide. In 1999, Intel created its Intel 64 fund to invest in new technologies that would eventually use more Intel next-generation 64-bit chips, and formed a $250 million equity fund to invest in new voice and data communications technology companies. As Intel is now focused on networking, a key element was the 1999 acquisition of network chipmaker Level One Communications for more than $2 billion in stock. This move led to Intel's new networking effort, dubbed Internet Exchange Architecture (IXA), which features reprogrammable chips for switches and routers. To support IXA, Intel created a new venture capital fund, the $200 million Intel Communications Fund. The first investment Intel made out of this fund was in Trillium Digital Systems. Trillium, which produces communications software, will optimize its products for IXA.

In similar moves, many high-tech companies based outside Silicon Valley have also created venture capital funds to exploit new technologies from the Silicon Valley area. In 1999, Microsoft invested over $9 billion in more than 70 start-up companies. In 1998, Nokia established the Nokia Venture Capital Fund (VCF), capitalized at $100 million to fuel future growth and boost new product and long-term business development. Nokia VCF has invested in two Silicon Valley-based companies: Ipsilon, which has now been integrated into Nokia Telecom's IP Routing, and Diamond Lane. By 1999, Siemens launched a U.S.-based strategic venture operation as part of the company's Corporate Research Group. The group began making investments in venture funds whose portfolios contained companies related to Siemens' business interests. By 2000, Alcatel created a $150 million investment fund for the same purpose.

The Drivers of High Efficiency Acquisitive Strategies

By engaging in corporate venturing, large companies gain access to business plans seen by venture capital firms, have contact with start-ups, have access to financing at preferred rates in later rounds, and block direct competitors from similar privileges. Corporate-sponsored venture capital funds are motivated by a desire of corporations to gain "windows on innovation." In addition, there are several other possible motives, including acquisition opportunities in strategic areas, defensive tactics to identify competitive threats, and cross-fertilizing skills by interfacing entrepreneurs with company managers. Internal expansion through a company's own R&D efforts is increasingly difficult as well. R&D in new fields is very expensive, and fresh ideas often get mired in bureaucratic conventionality and pressures to concentrate on existing product lines. Thus, corporate venture capital investing—as opposed to direct involvement—has become a

more effective method for corporations to achieve their primary goals without struggling with the human resource and compensation problems related to "in-house" operations.

The relationships between venture capital (VC) firms and entrepreneurs are a kind of governance of innovation by tournament (Aoki, 1999). A VC firm might stop the funding of a start-up if it does not believe in the competitiveness of the technology, market opportunities, or management team. This flexibility is impossible in an R&D division of a large corporation. VC firms view each funding decisions not as a project approval but as an option on future decisions. They reduce their exposure by investing in small increments until the key risk factors are resolved. Cutting losses on failing ventures can make a big difference to overall returns. Abandoning ventures in this way has never been easy for large corporations, whose projects are often underpinned by personal relationships, political concerns, and vague strategic objectives. In addition, many companies make funding decisions as part of an annual budgeting cycle rather than in accordance with project-specific deadlines.

The Pattern of Research Externalization in the American Communication Equipment Sector: Lucent Technologies versus Cisco Systems

In the early 1980s, AT&T was the major actor in the American communication equipment business. In 1990, when Cisco Systems (a communication equipment company created in 1984) became public, its net revenues were $69.7 million, its R&D budget was $6.1 million, and the R&D department employed 53 people. By 1990, ATT's revenues were $43.7 billion ($6.7 billion in telecommunications network systems), and its R&D budget was $2.4 billion with more than 24,000 employees in Bell Laboratories. By the beginning of 2000, Cisco had become a major actor in the American communication equipment business. Lucent (a spin-off of ATT in 1996), despite its huge research investments in Bell Labs, lost its technological leadership. In 1999, Cisco's revenues were $12 billion and the company employed 23,492 workers. In that same period, Lucent's revenues were $38.3 billion, and the company employed 153,000 workers (24,000 in the Bell Labs) with a $4.7 billion R&D budget. Yet, by the beginning of 2000, the higher market capitalization of Cisco Systems ($310 billion against $236 billion for Lucent) suggests that financial analysts preferred its strategy. The primary goal of this section is to understand why AT&T lost its technological leadership and how Cisco built its competitive edge. As part of this assessment, the discussion will also focus on how Lucent

Technologies is evolving from an internally-based research model to an externalized one.

AT&T has been unable to generate market disruptive technologies and was the archetype of a firm with the incapability to create disruptive technologies. For decades, Lucent Technologies had been the maker of phone equipment for AT&T, and it included the vaunted Bell Laboratories and its Nobel prize-winning technology. But one of the vestiges of supplying the country's phone monopoly was Lucent's bureaucratized organization with an R&D division focused on incremental innovation. Lucent's engineers emphasized reliability instead of disruptive innovation (strategic myopia). They often spent years developing products and tended to work more on what they wanted than on customers' needs (scientific focalization and low incentive). By the 1970s, from a technological and competitive point of view, the communication equipment sector was stable and marked by incremental innovation. Since the 1980s, however, the communications industry has experienced rapid changes in technology. Traditional circuit-based switching and data packet transmission are converging. The migration to a universal network increases the competition to provide the equipment, software and services that will serve as the infrastructure of this universal network. In 1998, Bill O'hea, president of Lucent's communications group admitted, "Quite frankly, we missed the last generation of data networking while a part of AT&T. We had all the technology to compete, but it was buried under a huge organization" (concurrent technology and organizational barrier; see Lucent Technologies, 1998).

In contrast, the externalization of research done by Cisco Systems through an acquisition-based strategy has been more efficient in creating a competitive portfolio of technologies. The markets for communication equipment products are characterized by rapidly changing technology, evolving industry standards, frequent new product introductions, and evolving methods of building and operating networks. There can be no assurance that any particular R&D division will successfully identify new product opportunities, and develop and bring new products to market in a timely manner. So, when Cisco Systems is unable to enter a particular market in a timely manner with internally-developed products, licensing technology from other businesses or, its preferred approach, acquiring other businesses are seen as better alternatives than internal R&D. Cisco has grown at a blistering pace by making 45 acquisitions in five years (18 in 1999 alone). In a sector marked by a high uncertainty on technologies, an acquisitive strategy is more proactive and flexible than relying on an internal R&D division.

Cisco dominates the U.S. data networking equipment market with 55 percent share, while Lucent has only 2 percent. Currently 80 percent of all Internet traffic passes through a Cisco router before reaching its final des-

tination. In 1998, Cisco had only 2 percent of the telecommunications equipment market. Cisco, however, has expanded its products line, particularly in the area of optical technology through an acquisition strategy. In August 1999, Cisco acquired privately-held Monterey Networks, an innovator of infrastructure-class, optical cross-connect technology used to increase network capacity at the core of an optical network. One month later, Cisco acquired privately-held Cocom A/S, a leading European developer of high-speed Internet access solutions over cable, satellite and wireless networks based on international standards. That November, Cisco paid $7 billion to acquire Cerent, a maker of a particular kind of optical gear that connects synchronous optical network rings, which carry regional phone traffic to Cisco Routers. Despite the acquisition of two optical-based systems companies (Cerent and Monterey Networks), Cisco still lacked the technology that can zip voice and data traffic across vast distances. Such equipment is important for national communications providers such as Qwest Communications International, MCI WorldCom and AT&T. By December 1999, Cisco had purchased the optical-based network equipment assets of European giant Pirelli for roughly $2.15 billion in stock, filling a hole in Cisco's portfolio of technologies. As this brief history illustrates, a major feature of Cisco Systems' management of innovation has been an acquisitive strategy, and its successes have influenced its competitors.

By 1998, the change in Lucent's technology management from a strictly internal R&D strategy to an acquisitive strategy points to a new framework for technology management in the high-tech sector. Despite its huge R&D capability, Lucent began using the same means as Cisco: buying start-ups to improve its technology portfolio. In 1996, Lucent bought only one company (Agile Networks) and three in 1997 (Triple C, Octel, and Livingston). Lucent's pace of acquisitions quickly accelerated, and the company has bought 11 firms in 1998 and 17 in 1999. On the growing market for corporate networking equipment, Lucent also apparently favors an acquisitive strategy. Lucent has periodically bought data networking companies such as Prominet et Xedia to complete its enterprise portfolio. Lucent also bought Ascend, the top maker of phone switches that use a technology called asynchronous transfer mode (ATM). But over time, carriers were eager to move beyond ATM to a technology called Internet protocol (IP). The problem for Lucent is that Cisco holds 67 percent of the IP market. In response, Lucent has acquired IP companies, such as Juniper Networks and Nexabit Networks and, by November 1999, Lucent Technologies announced that AT&T is among 60 phone companies that plan to test a piece of super-fast Internet gear Lucent acquired by purchasing Nexabit Network.

MANAGERIAL AND CONSULTING ISSUES IN RESEARCH EXTERNALIZATION

The fundamental proposition of social network theory is that network ties provide access to resources and information (Coleman, 1988). However, social relations, often established for other purposes, constitute information channels that reduce the amount of time and investment required for gathering information. The role of networks is to provide an efficient information-screening and distribution process for members of those networks.

Several scholars emphasize that the Silicon Valley is a network-based industrial system (see, for example, Florida & Kenney, 1990). According to Saxenian (1994, p. 31), "Silicon Valley has a regional network-based industrial system that promotes collective learning and flexible adjustment among specialist producers of a complex of related technologies. The region's dense social networks and open labor markets encourage experimentation and entrepreneurship." These networks are not formal networks between companies linked by contract or mutual shareholding. Rather these business networks are shaped by individual interactions, supported and nurtured by interpersonal links and relationships. The informal socializing that grows out of these quasi-familial relationships support the ubiquitous practices of collaboration and sharing of information among local producers. This type of social network raises challenges for larger companies like Cisco and Lucent as they attempt to capture the technology and innovative culture of smaller, start-up companies

There are three conditions for large companies to enter in the network-based industrial system of the Silicon Valley and to nurture the complex and dialectical process in which social capital is created and sustained through exchange, which, in turn, facilitates further exchanges: geographic and physical proximity, the social capital held by the decision maker, and the utility of resources available for exchange that are held by the decision-maker.

Geographic and Physical Proximity

Geographic proximity allows firms to monitor emerging technologies and avoid being caught off guard by unanticipated breakthroughs. Geographic proximity promotes the repeated interaction and mutual trust needed to sustain collaboration and to speed the continual recombination of technology and skill. The physical proximity between people is also a very important factor in building social networks. Proximity allows frequent formal and, perhaps even more important, informal meetings that are a means for gathering information from all members of social net-

works. The need for physical proximity helps explains why the large high-tech companies have set up their corporate venturing entities in Silicon Valley—Lucent Venture Partners for Lucent Technologies, Nokia Venture for Nokia, Innovacom for France Telecom, Siemens Mustang Ventures for Siemens, and AT&T Ventures are all located (or have an office) in the Silicon Valley.

The Social Capital of the Decision Maker

The success of corporate venturing is linked to the quality of the cross-fertilization between a large company's divisions (e.g., R&D, marketing, sales, specific business units) and the start-up it invested in. An efficient corporate venturing strategy depends on the overlap of internal and external social networks. This overlap allows the cross-fertilization between start-ups owning disruptive technologies and the internal capabilities of development owned by the large company. It would be relatively easy for a large company to penetrate the network-based industrial system of the Silicon Valley by employing people involved in its networks. In essence, the social capital of the people in charge of the corporate venturing is more important than their intellectual capital. In internal R&D, a key human resource (HR) issue is to recruit the best researchers. In external R&D through corporate venturing, the HR issue is to recruit people that have and/or are able to build social networks capable of generating technological opportunities before the competition. The higher the social capital, the more involved the venture capitalist will become in the social network and, as a result, the corporate venturing will become more efficient. The more embedded the VC becomes, the better the quality of information that he is able to collect. A large part of the information circulating in social networks is tacit knowledge that is exchanged through informal relations. A VC needs to be embedded in business social networks because it is the only way to collect such closely held, nonpublic information. While the financial issues of business success should prevent any collusion that could happen because of a friendship between a VC and entrepreneur, these concerns also provide a good incentive for a VC to try to penetrate the right social networks for his business. For example, J.B. Schwartz, the vice president in charge of the acquisition strategy for Sun Microsystems, is a former cofounder and CEO of Lighthouse Design, a start-up bought by Sun, and a former vice president of the Sun venture capital group. Due to these links, Schwartz has both inside and outside social capital, a combination that is very useful in managing an acquisitive strategy. Because of his background—the combination of technical expertise and social capital—he is well embedded in the social networks of the Silicon Valley, providing

him with access to private information on start-ups that are not accessible to an outsider. His technical expertise on IT software further enables him to better understand the business potential and opportunity that an innovation developed by a start-up might have for Sun.

Utility of Resources for Exchange

It is necessary to bring to the network a specific resource that will be accepted by its members. When engaged in corporate venturing, for example, large companies potentially bring funding to start-ups, technological support (e.g., Intel 64 Fund's investments in companies developing software for use with the ITanium chip, giving them access to the technology for almost one year before shipping it to market), and commercial opportunities. The key is for the persons in charge of the corporate venturing to have real decision-making power and authority, enabling them to create such potential cross-fertilization.

The Structure of Corporate Venturing

Considering these three requisite features—proximity, social capital dynamics, and exchangeable resources—an underlying key is to create the most appropriate structure for engaging in corporate venturing. From an organizational perspective, there are three approaches to such venturing (Brody & Erlich, 1998): internal corporate venturing, external corporate venturing, and mixed corporate venturing.

Internal Corporate Venturing

Large companies often give corporate venturing responsibilities to specific units, such as the Department of Finance or the strategy group, to make investments in start-ups (e.g., Microsoft, Nortel, Intel, General Electric). Advantages are that the team in charge of investments has a clear vision of the technology strategy of the company and it has strong social networks ties inside the mother company. This proximity, however, can be too close and contribute to strategic myopia. Another disadvantage includes relatively slow decision-making processes, which make it difficult to follow the pace of change in the world of start-ups. Moreover, inside decision makers do not typically have a strong social network outside the firm in larger network-based industrial systems like Silicon Valley (e.g., entrepreneurs, lawyers, VCs, universities), so technological opportunities are often missed because these individuals are not connected with the right social network of information. By keeping the corporate venturing unit

inside the firm, it is also difficult to implement incentive managerial devices like stock options. Since the compensation model for people in charge of corporate venturing has to be close to the classical VC model (where a partner gets 30% of his investment profits and 2% of management fees) to keep the best people, if such rewards are too different from those received by other employees in the firm the company risks creating feelings of inequality.

External Corporate Venturing

Large companies can create their own funds and give their management to a traditional venture capital firm (e.g., Sun's Java Fund that is run by Kleiner, Perkins, Caufield and Byers). Advantages are that the traditional venture capitalist tends to have a very good social network in the Silicon Valley for gathering technological opportunities, and these individuals are flexible in their decision-making process. Disadvantages are that traditional venture capitalists tend to lack a clear vision of the technology strategy of the larger company and are more focused on profitability than on the potential transferability of the investment. They also do not have a social network inside the company to facilitate cross-fertilization.

Mixed Corporate Venturing

In this model, the large company creates and funds its own venture capital firm with partners coming from both the mother company and the external network-based industrial system (e.g., Silicon Valley). For example, among the five partners of Lucent Venture Partners, three of them used to work for Lucent Technologies and the two others were previously CEOs of Silicon Valley start-ups, which were bought by Lucent Technologies. Among the eight partners of AT&T Ventures, six came from AT&T, one from one of the most famous venture capital firms in the Silicon Valley, and the last one from the Californian office of a consulting group. Moreover, the two outside partners are also graduates of Stanford University. Advantages of this form of corporate venturing include the relative independence of the venture capitalists from the mother company (they monitor the decision-making process), and their ties with other venture capitalists within the Silicon Valley area (e.g., Kleiner and Perkins, Sequoia Capital, Mayfied Fund) that are interested in working with large high-tech companies to leverage the start-up innovations. Moreover, as illustrated by Lucent Technology's approach, partners coming from the Mother Company have a lot of connections inside the company, facilitating opportunities for cross-fertilization. The partners coming from the network-based industrial system are connected to many actors in the Silicon Valley, which enables them to find additional technological opportunities.

The competitive advantage for large high-tech companies is determined by the quality of their relationships within the network-based industrial system of the Silicon Valley. Since the organizational design of the corporate venturing has an influence on the sustainability of that competitive advantage, differences between firms, including differences in performance, may represent differences in their ability to create and exploit social capital. In the last few years, many large high-tech companies have opted for the mixed corporate venturing model—for example, Deutsche Telecom, Sun, IBM, Siemens, Nokia, France Telecom, Alcatel, and Samsung. It seems that this approach is the most efficient and effective way to penetrate the network-based industrial system of the Silicon Valley.

CONCLUSION

The new pattern of the management of innovation used by large high-tech companies in Silicon Valley has strong implications for organizational theory, management strategy, and consulting. First, it validates the contingency theory argument that links high levels of uncertainty and the need to decentralize decision-making processes. Research externalization through an acquisitive strategy squares with the extreme form of decentralization and decision-making processes appear to be more efficient in the context of externalized research. Second, it raises questions about the extent to which research internalization—in essence, a "go-it-alone" strategy—is the best way to assure a competitive edge by securing disruptive technologies. Research internalization typically fails to generate marketable disruptive technologies because of strategic myopia, a tendency to reject concurrent technology, scientific focalization, organizational barriers, and low incentives. Research externalization enables companies to overcome these problems.

Research externalization strategies, however, raise a number of managerial and organizational challenges. From a managerial point of view, the issue is no longer having the best scientific people but the people able to detect quickly new disruptive technologies produced by small businesses and favor their integration in the Mother Company. Thus, the social capital and the embeddedness in the business environment of managers and technical experts become critical factors. Large high-tech companies often discover information through their interactions with other economic actors in the market, and the social networks in which the firms' employees are embedded drive the quality of information that they gather. The key to organizational success is to design a governance structure that encourages such network building, providing incentives for people to draw on their social capital while implementing the company's strategy. The creation of a

venture capital unit employing a mix a people coming from the Mother Company and from the larger network-based system (Silicon Valley) seems to be the right governance structure to detect and to integrate new disruptive technologies.

The understanding of a dual approach to innovation management—as an internal R&D issue and part of an acquisitive strategy—has several implications for consultants working with companies in the high-tech industry. First, this perspective enlarges the scope of their intervention. To increase the rate of innovation, externalization of R&D can be understood as a alternative sustainable approach that goes beyond simply attempting to improve the inside coordination between the R&D department and other key departments in the firm. Second, it requires that management consulting firms develop analytical tools that enable them to analyze internal and external social networks that underpin their client's activity, creating business models that link interventions on social networks with ways to improve client efficiency. Third, management-consulting firms need to create managerial and organizational devices that facilitate the business-related social networks of their clients. Within this context, the implementation of a new strategy not only supposes organizational change, but also points to the need to have it supported by the right social networks. As it is an issue for large companies to create strategic business networks to gain access to resources without straying from their core business, this type of corporate venturing can provide a new pattern for consulting firms to help solidify the inter-firm networks of their clients.

NOTE

1. An earlier version of this chapter was presented as part of the Management Consulting Division program at the 2002 Academy of Management meeting in Denver, Colorado.

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CHAPTER 11

CREATING A COLLABORATIVE COMMUNITY OF MANAGEMENT CONSULTANTS

Janice Twombly and Jeffrey Shuman

In August 2000, Peter Drucker noted, "The corporation as we know it, which is now 120 years old, is unlikely to survive the next 25 years. Legally and financially, yes, but not structurally and economically" (quoted in Daly, 2000). We could not agree more. There is mounting evidence of the accuracy of Drucker's prophecy across industries, as the value propositions offered by traditionally structured businesses are falling well short of meeting the needs of the newly knowledgeable and powerful customers prevalent in today's postindustrial economy.

Professional service providers, including management consultants, are deeply affected by the resultant, ongoing restructuring of businesses and industries. On one level, professional service firms are in position to be prime beneficiaries of this restructuring—in essence, being increasingly called on to help managers in industrial-age companies make the organizational transition as the creation of value shifts from traditional business practices to relationship based and other intangible sources (see Center for Business Innovation, 2000). And indeed, forward thinking firms have begun to guide corporations toward the networked economy, recognizing,

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at least to a limited extent, the increasing power of the customer to choose with whom and under what terms it will do business.

Today's business environment has been brought about in large part by advances in information and communication technologies that enable collaboration between previously unconnected people. This change has created problems for hierarchical companies with stove-piped, rigid and reactive structures. The traditional model of the professional service firm, however, is just as archaic as that of any industrial-age corporation. Thus, it should not be a surprise that this model is currently under attack by the same disruptive forces that business at large is experiencing.

Certainly, not all of the layoffs in and closings of management-consulting firms during the past few years are due to a manifestation of Drucker's prophecy. But just as corporations are in the process of reorganizing into what we refer to as *Collaborative Communities*, professional service providers must also understand the implications of this development for their own business models. Collaborative Communities are seamless alliances of trusting, purposeful, and mutually beneficial relationships between trading partners and consumers, where everyone benefits by focusing on profitably satisfying the set of needs and wants of the consumer group that defines the community (see Shuman & Twombly, 2001, 2002). Understanding this transformation helps to clarify why the once high-growth jobs of information technology and management consulting are disappearing at an alarming rate.

Many downsized and/or disillusioned professionals recognize that the traditional firm-based career is neither an appealing option, nor perhaps an option at all, as the industry continues its retrenchment and ultimate realignment. While the tangible assets that were part of the overhead these now "firm-less" professionals consumed may lay fallow, the relationships and knowledge they came to the firm with, left with them, enhanced by relationships and knowledge gained on the job. In essence, every time a management-consulting firm lays-off a professional, they give birth to a new competitor. And rather than simply operating as sole practitioners, many of these seasoned professionals are beginning to form loosely-coupled, multidisciplinary communities of practice, transcending the traditional sharing of best practices and networking, and specifically developing joint product offerings, seeking business opportunities as if they were one entity.

From our perspective, these newly emerging "firms," which defy traditional legal structures, are *Collaborative Communities* of management consultants. These communities of practice are composed of (1) a broad array of professionals who act as business partners and (2) a choreographer who builds and ties the community together. Rounding out the community are the (3) knowledgeable and powerful customers who must be enticed to

share the information that businesses need in order to have their own needs satisfied. As the builder of the community, the choreographer's role is to understand the needs and gain the trust of these customers, translating that knowledge and trust into profitable, "win-win" relationships with the business partners (Shuman & Twombly, 2001, 2002).

Drawing on a case study, this chapter describes the early stages of forming a Collaborative Community of high-level professional service providers. The underlying ideal is that by working together, these individuals—as a community—will be better able to provide the multidisciplinary services that client organizations need as they attempt to solve the complex problems that face them. Ironically, many of these problems are often rooted in the very challenge faced by the Collaborative Community itself—transforming a company from a product- or business-centric orientation to one focused on customers and other externally-oriented relationships.

INTRODUCING THE GENNOVA GROUP

Gennova is a purposefully coined word, representing the intersection of "genesis" (new beginning) and "innovation" (new creation). From our perspective as founding members, the Gennova Group reflects a unique implementation of the practice of relationship business as it applies to management consulting.

The Gennova Group, which captures the essence of the "professional community of the future," was founded to address two unmet needs (see www.gennovagroup.com):

1. *Client needs*: Clients of professional service firms have become increasingly dissatisfied with the value they receive from their professional service providers. Common complaints are that the staff are too junior; the costs too high; the engagements too long; and the solutions short-lived or ineffective.
2. *Member needs*: Many talented professionals have left large firms to work on their own or in specialist boutiques. Although they value the autonomy and flexibility of an independent career, they miss the resources and fellowship offered by a large firm.

It is a professional community that attempts to integrate research, delivery, and member development in a way that captures the focus and flexibility of a small firm with the resources and scope of a large organization.

Building the Professional Services Community of the Future

In early 2002, a colleague suggested that we meet Mark Bonchek, founder of the Gennova Group, as she saw that the organization he was building was a manifestation of our Collaborative Community concept. Bonchek was focused on the implications of the shift toward relationship-based business and the networked economy for professional services, especially within management and technology consulting. At that point in the initial development of the Gennova Group concept, Bonchek's goal was to assist professional services firms in (1) understanding why their hierarchical, overhead-laden business models were no longer effective, and (2) helping them transform into agile, cost-effective networks of competencies that were aligned around customer needs.

Following the natural development process all businesses go through, he quickly found that the customers he initially intended for his product—the professional services firms—were not interested. They were comfortable with their existing organizational models and were unwilling to experiment with any departures from their traditional business approaches.

At that point, Bonchek iterated his model into two potential development paths. One was that Gennova itself could become a next generation professional services firm, competing with the likes of McKinsey, Bain, Boston Consulting Group, and so on. Its focus would be to lead corporate clients to alignment around stakeholder needs and perceptions of value in the networked and constantly shifting borders of the business environment. The other path would essentially create a new type of trade association that attempted to continually meet the educational and business development needs of tuned-in, top-level, multidisciplinary independent professional service providers.

Defining the Gennova Group Collaborative Community

The Gennova Group began as this idea was discussed within certain circles of largely Boston-based, professional service providers. But it was just that—an idea. The "buzz level" was fairly high, as it seemed that nearly everyone one we spoke with knew someone who was tuned into a conversation about Gennova. And not surprisingly, legions of independent consultants, many of who had either voluntarily or involuntarily left larger firms, were anxious to embrace any network that might result in access to elusive cash-paying clients. By drawing together a number of key players during a networking event based on relationship business principles that we facilitated at a May 2002 forum, the participants decided to begin to build the community.

The Barn Raising

In July, 2002, Gennova Group was born.[1] As it began to emerge, it was unclear as to whether it was going to be a business, a networking group, a professional association, or some combination of these traditional models. Drawing on Schaffer and Anundsen's (1993) community-based framework, participants began to create a community where people would: (1) participate in common practices; (2) depend on each other; (3) make decisions together; (4) identify themselves as part of a larger entity; (5) commit to their individual and collective well-being; and (6) embed their knowledge in a way that accelerates learning.

Accordingly, the initial approach to forming Gennova Group let the community itself discover and create what Schaffer and Anundsen (1993) refer to as "something larger," defining and bringing about both the individual and aggregate well-being people naturally seek within a community. The critical assumption underlying this collaborative effort is that sharing common ways of working and decision making accelerate learning about how to successfully do whatever one is trying to do.

As a way of initiating the process, the essence of collaboration and building relationships was initially reduced to answering three deceptively simple, emotionally defused and assumption-forming questions, "How can I help you? How can you help me? And, Why might you help me?" Individuals who are most successful in collaborative endeavors learn to ask these questions at every point of interaction, continually refining their assumptions based on what they have just learned. In essence, this creates an iterative process of collaboration in which people can effectively validate (or invalidate) their own assumptions and inferences, clarifying the best way to maximize collaborative endeavors.

Such iteration and iterative processes, however, are not well understood nor practiced broadly. Iteration can be thought of as a sequence of operations that gets one successively closer toward a desired result. Successfully iterating requires an alignment of the grand scheme and the daily details that exist at all levels of operation and thought. It is a proactive, process-driven response to an ever-changing environment. While proficiency at iteration is not easily achieved, those who have mastered this approach are almost always highly successful. It is a discipline from which exponential benefits flow from every degree of incremental proficiency—whether applied to our global community, a civic community, a trading community, or any single set of business relationships.

Exhibit 11.1. Barn Raising Notes: The Gennova Group

July 10, 2002

Barn Raising

Breakout Topics of Shared Interest

- Learning/knowledge/innovation
- Adoption of technology and tools
- Building communities
- Media and communication
- Product development
- Organizational change/Leadership in a networked world/managing virtual firms
- Sectors
  - •Professional services
  - •Life sciences/biotech

What We Want

- Increase sales
- Build joint ventures, projects, products
- Discounted services
- Access to think tank and brain trust for idea development
- Build relationships with people

Questions

- What's the business model?
  - •Membership fee
  - •Referral fee
  - •Equity model
  - •Set aside from what we build back to Gennova Group (GG)
- How does integration fit with the business model?

Next Steps

- Do some practical things together
  - •Build trust and relationships out of action
  - •Take on real projects together
- Build principles out of the practice
- Coordinate related articles around a topic
  - •Would show integration of thinking

Exhibit 11.1. Barn Raising Notes: The Gennova Group (Cont.)

- Get volunteers together to move this forward between now and next 6-8 weeks
  - •Working team
  - •Set themes and get movement
- Group to work on governance structure
- Reflection on how we are different from the competition
  - •What are our principles and shared values?
- Homework
  - •What would/should we value?
  - •What are our shared principles?
  - •Articulating our unique skills and competencies
- Meet again soon to build on the energy here
  - •Present more focused visions of what GG could be
- Use survey to determine competencies as they relate to natural interests
- Build individual relationships through lunch or breakfast meetings with people you are drawn to
- Invest more time in building community – take time to build relationships in groups
- Build a book or write articles together (e.g., on Barn-Raising or GG idea)
- Clarify common set of principles and rules that allow independent, spontaneous action
  - •Keep it simple
  - •Allow it to be adaptive
  - •Beware of pull of hierarchy

Action Items

- Send out survey (Choreographer)
- Reflect / Recommit / Reply (Those interested)
- Meet again in September for half day (Those interested)
- Meet to plan next steps (Team)

The "barn raising" for Gennova Group was designed to introduce the participants to each other, to begin to develop relationships, and talk about next steps. It began as a largely social event, with each of the 43 participants having the floor for approximately 5 minutes to share information on his or her background and interests. A guiding theme for this exchange was "what are you passionate about?" The underlying goal was to find where people placed their emotional energy, not simply to capture their expertise. According to Bonchek, Gennova Group's choreographer, such sharing and openness are critical in jumpstarting these types of communities.

Following the introductions and casual conversations, the focus turned to breakout sessions (see Exhibit 11.1) to explore areas of professional interest. Returning to the group as a whole, it quickly became clear that 43 sets of individual expectations were still paramount. The day, however, either met or exceeded expectations of most of the participants as the outcome was a commitment to continue the journey. Exhibit 1 summarizes the barn raising event, the types of questions that emerged, and next steps in the community-building process.

A group of volunteers formed a Design Team and worked through the strong egos, ideologies, and independent expectations of the professional service provider "partners," beginning to create a foundation for the new organization that would benefit everyone's self- and mutual interests.

Designing the Guiding Principles of Gennova Group

Nearly half of the barn raising participants volunteered to design the community/organization, exploring such issues as governance, infrastructure, and the underlying revenue model that would be used. Keeping with the principles of community, it was decided that the organization through its members would evolve its own structure. Three alternative approaches were proposed:

- A focus on innovation, such as a community-of-practice, think-tank, or R&D laboratory;
- A networking group for referrals, staffing resources, and practice development; and
- A focus on service delivery through a virtual firm or practice group.

Guided by the concept of a Collaborative Community, before the structure could evolve and be finalized, the specific set of customer needs that the organization would fulfill had to be identified and agreed on. This brought about a highly charged discussion among Design Team members.

Who Is the Customer?

Since the Gennova Group was created to the meet needs of its members, they are the primary customers in terms of overall value created, utilized, and exchanged. However, a Collaborative Community is primarily focused on the needs of the end consumer group that ultimately defines the community. The Gennova Group was at such an early stage that the revenue model had not yet been determined (although it was fairly certain that individual members of the group would pay an annual fee). Thus for the community to develop and succeed over time, it had to facilitate bringing paying clients to its members. Therefore, it was ultimately agreed that the

consumers of multidisciplinary solutions to complex business problems were the end customers of Gennova Group and that subsequent activities should focus on clearly "identifying areas where we can market, sell, and deliver collaborative, multidisciplinary services to clients."

The Guiding Principles

Drawing on this insight, the Design Team reached consensus about the primary purpose of the Gennova Group—to deliver integrated business services to client organizations and, as a result of service delivery, continue to develop relevant intellectual capital and new business relationships. In essence, the Design Team understood that rather than choosing between the three proposed alternatives outlined above, the organization needed to deliver on all three if it were to succeed.

Thus the Design Team set forth the following guiding principles:

1. The primary purpose of Gennova Group (GG) will be to deliver integrated business services to organizations;
2. GG's services will be multidisciplinary solutions to complex business problems;
3. GG will use the least infrastructure and overhead possible to achieve its objectives;
4. GG's members will be selected through nomination and sponsorship by other members; and
5. GG's assets will be owned and governed in common by its members.

While all five tenets are important, operationalizing the fourth and fifth principles is critical to developing the services and business activity anticipated by the first two principles. Ultimately, the success of Collaborative Communities such as the Gennova Group will depend on their members' willingness to share: (1) domain expertise and work methods; (2) access to clients; (3) knowledge transfer products and service methodologies; and (4) validation as to another's expertise. Therefore, confidence in another member's ability to deliver value to one's own clients as well as trust in the integrity of another member's actions are foundational elements for building the community.

Not surprisingly, this point caused a few barn raising participants to decide the Gennova Group was not right for them. In their opinion, the amount of relationship building required to reach the level of trust necessary to engage in joint work meant that for them, the value offered by membership in the community was not sufficient. In diplomatic circles it is said that both parties must have enough trust—or lack thereof—between them, to engage in the specific activity at hand. As each party gains experience in working with the other, understanding the other's goals, and how

they can help (and hurt) each other, that level of trust can increase or decrease, affecting each party's ability to engage in certain activities.

The same is true in business. The position expressed by most participants at the barn raising and through the Design Team was to "simply get to work." By beginning with tentative trust—initially defining and working on relatively low-risk projects—Gennova Group members began to build the foundation necessary to get to the next level of trust required to participate in the next iteration of value-adding projects. This iterative process is how trust is created, one interaction at a time and is essential for any true collaboration to occur.

Challenges

Among the many challenges that might derail Collaborative Communities like the Gennova Group, ownership and rights to intellectual property, including brand, are especially critical in a professional services context. Again, the balance between the self- and mutual interests of the members must be identified and maintained in order to understand "who owns what." Thus, the group's fifth guiding principle was expanded as follows:

> The most important assets owned by Gennova Group will be intellectual property and brand, followed by technology and financial capital. In all cases, members will retain rights to their own assets, including their brand and intellectual property. Whatever assets are owned by Gennova Group will be those contributed by the members (e.g., money and software) or created through joint work (e.g., brand and intellectual capital).

With these principles decided, the work of the Design Team was complete and the second general meeting scheduled for mid-September (2002) to identify specific opportunities on which to focus the Group's energy and begin to generate new business as a community.

The Market Swarm

More than thirty people participated in the September "Market Swarm," a meeting structured around the principles of Open Space Technology. The guiding idea was that "anyone who wants to initiate a discussion or activity writes it down on a large sheet of paper in big letters and then stands up and announces it to the group" (see www.co-intelligence.org/P-Openspace.html). Participants chose which issue they wanted to discuss (if any) and a series of submeetings began. The intent of the Market Swarm was to provide all interested members with the opportunity to pursue joint work, either with existing clients or perhaps as a potential product offering for Gennova Group.

As discussed earlier, an inherent assumption in this plan was that sufficient trust would develop as people began to test the community, putting forth opportunities without fearing that client confidentiality would be breached or that they could be harmed in any other manner. If such trust was not developed, the Gennova Group, as envisioned by the Design Team, would never come to life. The iterative process, however, worked and five action teams formed to pursue business opportunities. Two were based on client relationships introduced by members to explore ways they might grow the engagement with the involvement of other members. This was an important milestone for the group, as it clearly demonstrated the desire of members to work together, building value for themselves and the community overall.

During the event, a number of issues began to surface. Among the questions and concerns that members raised were:

- What are our shared values? How can we ensure the integrity of these values?
- How would members work together on client opportunities? How should prices be set and revenue shared?
- What is the Gennova Group brand? How should members use it? How can it be protected in a distributed organization?

While these were clearly valid questions, worthy of thought and debate, the five general principles the Design Team put forth were largely accepted. The group also accepted that the answers to these key questions required additional discovery that would only occur as a result of practice and working together.

As a result of this discussion, the Market Swarm session ended with five key areas for joint-work exploration:

- *Customer Relationships:* How GG might generate more revenue and loyalty in customer relationships through customer communities and network-based businesses
- *Civic Development:* How GG might catalyze civic development in the metropolitan area by building cross-sector stewardship
- *Information Technology:* How GG might enhance its clients' return on technology investment by improving user adoption through collaborative learning and internal marketing
- *Professional Services:* How GG might improve scalability and profitability in service businesses through the development of new methodologies and service offerings
- *Sales:* How GG could increase revenue and profitability through integrated communications in support of sales

The Hive: Finding One's Heart, Head, and Wallet

That fall (November 2002), 24 people attended the third general meeting of the Gennova Group. Seventeen of these individuals were at the first meeting and represented the core of the emerging organization. Other talented professionals were still testing the waters, determining how they might benefit from, and contribute to, this self-organizing group.

Drawing on the work accomplished thus far, four main working groups emerged, each one focused on a specific set of activities:

1. *Visibility:* developing a conference to begin building customer awareness of the Gennova Group (the initial foray into bringing consumers into the community).
2. *Focus:* developing a specific offering to increase return on technology investments. The idea was to draw on member expertise to create a solution to an expensive and prevalent problem that requires multidimensional solutions to complex problems of integration and alignment. The team's initial focus was to be placed on wayward enterprise resource planning (ERP) investments.
3. *Leadership:* Creating thought leadership around peer networks and the monetization of community, a central element of relationship business.
4. *Civic Change.* Applying the Gennova Group's knowledge of relationship and communities to important issues within society.

Given the excitement and flurry of activity during the meeting, a biological reference to the nectar gathering and depositing activities of bees was used to characterize the session as "Hive." As Bonchek concluded at the end of the meeting, this diverse group of professionals, working together to form a community of practice, seemed to have found its "head, heart, and wallet."

The intention was that the teams that emerged from the "Hive" would follow up these activities on their own, exploring opportunities and developing their relationships with each another. Anecdotal evidence suggests that this has been occurring in a number of different ways. The team working on technology adoption, for example, has developed a "strawman" model for their joint offering. The communications and marketing subgroup has created the format and content of a workshop in which Gennova members would "present and facilitate an array of marketing and communications solutions to a select audience of marketing attendees."

As the concept of the Gennova Group as a Collaborative Community continues to evolve, the vision is that community members will receive a variety of benefits:

- *New Business:* The intent is that GG members will generate a stream of business opportunities for each other. As other members encounter opportunities for which they do not have the resources or skills, they would naturally turn to fellow Gennova Group members.
- *Qualified Resources:* The GG community will be comprised of only qualified, experienced, and trustworthy colleagues. When members need additional resources, they would be able to call on fellow GG members with confidence.
- *Enriching Relationships:* Members of the GG community would provide each other with intellectual stimulation, professional support, and a sense of common purpose. The relationships developed through association with GG would become as enriching as they are enduring.
- *Convenient Services:* GG would provide convenient support services that can be difficult or time consuming for its members to locate on their own (e.g., document production, graphic design, public relations, technical support).
- *Complete Autonomy:* While being a part of the GG community, members have the autonomy to run theirs own practice, retaining complete control and rights to their intellectual property. Members are free to maintain their own brand or use the Gennova Group brand as they see fit. Finally, members are never under obligation to work with another member on an engagement.

A related benefit that comes from being part of such communities is access to the social networks of other members. In a number of instances, for example, responses to requests to the group for consultants with a particular expertise have had a degree of separation from the community, that is, an individual outside the community who a member knows is brought in. These "extra-community" networks draw a wider range of experts into the community, opening the possibility of even more leads and exchanges. When you take this expanded network into account, the value for members becomes exponentially larger.

CONCLUSION

It remains to be seen, as plans are developed and implemented, if members will receive sufficient value from membership in the Gennova Group to keep people participating, contributing financially to the group, and tackling the many issues this new form of organization will face. However, it is an exciting opportunity to witness and participate in this experiment of creating a multidisciplinary, networked professional services community.

The story of how it has arrived at its current state provides an opportunity to examine and understand why relationships drive value in business.

While the building of the Gennova Group's Collaborative Community is very much a work in progress, there are five key lessons that professional service providers thinking about starting a similarly structured organization can draw on:

1. Even in a self-organizing community there needs to be a leader who is able to make sure that the community's overarching goals are clear and that the community continues to move forward.
2. The community has to be formed with the needs of the end customer as the organizing framework.
3. While the community is organized around the end customers' set of needs, it must also take into consideration the needs of the individuals that comprise the community.
4. Members of the community must check their egos at the door. If the community is to be able to profitably satisfy its customers' needs, it must work as a group with a team-oriented methodology as opposed to a collection of individual frameworks.
5. The community has to start some place. Trying to decide everything and resolve all issues before going into the marketplace will not work. Successful Collaborative Communities are built using an iterative process, learning from experiences and adapting to the realities of the changing marketplace they are attempting to serve.

Membership in Collaborative Communities like the Gennova Group provides professional service providers with the opportunity to better position themselves to achieve their own financial and strategic goals. Based on what we have witnessed thus far, everyone who belongs to Gennova has derived increasingly valuable "noncash" currencies, such as access to customers, an ability to hone their skills, and the opportunity to expand the range of problems they can solve. Membership also serves as further validation of their level of professionalism and expertise. For the core group that truly understands the value such membership brings, these relationship-based currencies are literally worth their weight in gold when it comes to building the professional services community of the future.

NOTE

1. All further references to Gennova Group come from personal participation in meetings and discussions, as well as notes and documents prepared for/from meetings identified by their date of origin.

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CHAPTER 12

BUILDING SUSTAINABLE NETWORKS

An Action Research Strategy for Management Consultants

Marilyn E Harris and Guilan Wang

Information and knowledge on building relationships and networks in and between organizations have been available for some time. Yet understanding the dynamics associated with these networks, a necessity for strategic development, is sparse and is only slowly emerging. As Ackoff (1984, p. 1) points out:

> One can survive without understanding, but not thrive. Without understanding one cannot control causes; only treat effect, suppress symptoms. With understanding one can design and create the future ... people in an age of accelerating change, increasing uncertainty, and growing complexity often respond by acquiring more information and knowledge, but not understanding.

Within this context, the aim of the chapter is twofold. First, our goal is to develop a fuller understanding of networks and the underlying ideal of network sustainability. Based on these ideas, our second objective is to present an intervention strategy focusing on the use of networks in prac-

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tice. As part of this discussion, the chapter draws on a failed effort to create such networks in a university setting. Operating from the premise that significant learning can emerge from intervention failure (e.g., Manz, 2002; Mirvis & Berg, 1977), the analysis focuses on what went wrong and what could have been done differently, drawing out ramifications for member organizations and their management consultants.

UNDERSTANDING NETWORKS

Our understanding of network dynamics is enhanced by Allee's (2003, p. 78) work in which she defines networks as:

> a pattern of organization that is a set of nonlinear, non-hierarchical relationships that nest with other networks. Networks consist of just two elements: nodes and connectors that are self-organizing. The value and capability of a network expands with the number of connections. When a certain level of connectivity is reached in a complex system, the capabilities that are being unleashed may be far greater than the sum of the parts.

This view suggests that networks can be thought of as living systems, in essence a series of nodes and connectors that constantly change and develop. While Kelly (1998) points out that there are several types of connection—"object-to-object," "human-to-human," "object-to-human"—the focus of our work is on human-to-human, social connections.

The Role of People in Network Building

Understanding the network perspective makes it abundantly clear that success in today's business world depends on relationships. The foundation of good business relationships has been, and always will be, based on trust. Character counts. There is a new ethical underpinning for success in business that requires higher levels of integrity and honesty than ever before. While companies themselves are becoming increasingly transparent, networks are much more transparent than companies. Relationships and linkages are visible to everyone. Questionable business deals play out on an increasingly public stage, as witnessed recently by the likes of Enron and Worldcom. Technologies may dazzle people in what they enable people to do, but the bottom line of any business is about the exchanges and transactions that take place between human beings. Even when people never see each other or speak directly—operating in virtual contexts—only real people can make decisions and initiate action. Thus, understanding

the role and importance of the human dimension is critical in developing an understanding of networks and network building.

Kent and Anderson (2002, p. 3) clarify the importance of people in relation to technology by suggesting that "technology is only a satisfier ... but technology, even the best, will take any organization only half as far as it needs to go." They stress that it is the organizational members themselves that will take their firms all the way to success. A core mission of leaders, therefore, is to tap into the energy of the workforce, creating the impetus for it to carry the organization to new heights.

Coleman (1988, 1995) argues that "social capital" is the foundation of economic progress. As suggested by Cohen and Prusak (2001, p. 4), such social capital consists of "the stock of active connections among people, the trust, mutual understanding and shared values and behaviors that bind the members of human networks and communities and make cooperative action possible. Social capital depends on trust." Similarly, Fukyama (1995, p. 271) notes "the most important lesson we can learn from an examination of economic life is that a nation's well being, as well as its ability to compete, is conditioned by a single, pervasive cultural characteristic: the level of trust inherent in the society." Social capital, in essence, emerges from human relationships and human networks.

Understanding Exchanges and Transactions in Networks

Intangibles are "nonphysical factors that contribute to or are used in producing goods or providing services, or that are expected to generate future productive benefits for the individuals or firms that control the use of these factors" (Allee, 2003, p. 155). The premise for thinking of intangibles as assets is that knowledge, relationships, and ideas have become more important for success than physical assets. In short, intangibles are a nonphysical claim to future benefits and may be classified in terms of: *external structure* (business relationships outside the organization), *human competence* (individual and collective capabilities), and *internal structure* (systems and work processes that leverage competitiveness). Recent research, for example, has shown a strong connection between profitability and emotional intelligence, a form of social intelligence that involves the ability to monitor one's own and another's feeling. Goleman (1998, p. 27) found that "the single most important element in group intelligence ... is not the average IQ in the academic sense, but rather in terms of emotional intelligence." As the Levering and Moskowitz (2000) studies of "great places to work" concluded, companies with excellent employee relationships and social harmony enjoy greater financial success than other companies in their industry.

Knowledge flourishes in socially harmonious relationships, where there is trust between the participants. The fertile soil of good relationships allows bountiful harvests of creativity, innovation, and learning. Understanding organizations as healthy, living systems essentially means that individual participants pursue negotiated self-interest with consideration for the health of the other levels of the system. People want others to succeed when they appreciate that their individual success is directly linked to the health and vitality of the entire network (see Allee, 2003).

Understanding Network Effectiveness and Sustainability

A sustainable network is one that is self-perpetuating over the long term. This means that it uses resources at a rate that does not exceed the rate at which they can be replenished, and that it produces waste materials at a pace that does not exceed the rate at which they can be reabsorbed by the environment. Within this context, a sustainable organizational network can be described as an entity that provides customers with goods and services for living a satisfying life, while maintaining both a healthy balance sheet and a healthy balance with the natural world.

The great challenge of organizational life is to achieve stability while being flexible enough to adapt and change. To be sustainable, organizational networks must maintain a proper balance between order and disorder in a way that is compatible with the larger environment. There is no one right answer for order, nor is there one right answer for how businesses should be structured to ensure they are sustainable. The creative edge may be maintained with many different forms, according to what is happening in the environment (Allee, 2003). The challenge workers, managers, and leaders face, therefore, is to identify the "simplexities" that will help model and make sense of their interconnected, nonlinear networked organizations. It is increasingly apparent that better self-organization is needed to live on the creative edge of such chaos.

UNDERSTANDING THE CHALLENGES OF NETWORK BUILDING: A CASE STUDY

The chapter proposes an Action Research (AR) strategy as a useful approach to creating effective and sustainable networks (Reason & Bradbury, 2001). An AR strategy encourages self-organization and negotiation of network outcomes, which sets the stage for cooperative interaction in the system. Within this context, the AR ideal is that, from the very beginning, all players—consultant, client, and participants—begin as equals, an

objective that creates a level playing field. Each participant builds respect for others and the success of the total system through identifying sought after transformative results. Almost inadvertently, through this interaction people also begin to more fully relate to each other, developing meaningful relationships—which are the essence of networks.

Developing an Applied Research Institute

The overarching goal in the case presented in this chapter was to create a series of effective and sustainable value networks in an applied research institute (ARI) that would be international and interdisciplinary in nature. Physically located on the main campus of a large mid-western U.S. institution of higher education, the ARI was to be theoretically grounded in the "self-funding" action research strategy of the Socio-Economic Approach to Management (SEAM) (see Savall, Zardet, & Bonnet, 2000; Savall, Zardet, Bonnet & Moore, 2001). Essentially, the SEAM approach uses professor management consultants and their students working with local clients, emphasizing teaching/learning for all parties and focusing on developing both near-term financial success and long-term potential in the client organization.

In pursuing a deeper understanding of network building in creating an ARI, this section focuses on three key issues:

- Methodology: understanding the AR strategy, and how a lack of understanding may confound reaching the desired transformative outcome in the consulting assignment;
- Context: understanding the inherent problems in the higher education environment, which may confound effectiveness and sustainability of a networked applied research structure; and
- Systemic Challenges: understanding the challenges for the member organizations in successfully developing an ARI network.

Methodology: Understanding the Action Research Approach

Whenever consultants use an AR strategy it is important to initially review the major requirements of the approach with clients. In so doing, it is important to emphasize the cooperative nature of decision making, the different but compatible roles of the consultant and client in such joint interaction, and the use of a "research to action" practice cycle. The relationship between the consultant and the client is democratic in that the management consultant and client as the local problem owner cooperatively link action and knowledge to get results.

Ideally, the consultant and client are both equally concerned with means and ends. In many consulting interventions, however, consultants are often overly concerned with the means, while the local problem owner (client) is more concerned with results. While reaching a level of understanding and joint concern for means and ends may initially take more time, the participative approach accelerates and enhances future interactions. This experience is basic to negotiating one's self-interest relative to the health of the whole system, a critical factor defining network effectiveness.

An AR strategy is based on the assumption that problems are "worked out" in a *holistic context*, as they actually happen on site. This premise raises two concerns: the first reflects the "whole," that is, each context must be considered in its entirety; the second is uniqueness, that is, each context is different and cannot be considered as a carbon copy of another, even in the same industry or companies of like size. Contracting, therefore, goes beyond what might be typically expected in a consulting engagement, including: (1) identification of the client-consultant working relationship; (2) management of the interactive processes to reach specified goals; (3) the need to anticipate and identify transformative results; and (4) defining a relevant means of testing results/outcomes to demonstrate the desired "transformation" in practice. This type of contracting forms a critical foundation for achieving transformative results in the engagement, and an active ongoing means of accountability.

Identifying these variables creates a basis for "preunderstanding," which increases the potential and strategic fit of the AR approach.

Context: Understanding Problems that May Confound ARI Networks

Building a networked, self-sustaining applied research institute in a traditional university environment involves a culture clash with the established culture in higher education see (Baburoglu, Emery & Associates, 2000). A simple comparison of the major factors involved shows the potential for diametric opposition. For example, the idea of an ARI is based on interdependence and a democratic structure rather than the traditional hierarchical university structure that operates as a "smoke-stacked" organization. In the traditional setting in higher education, there has been little ongoing dialogue across disciplines. Communication is often limited to organizational members within a particular discipline or school, and communication between faculty and administration is often further constrained.

For many universities, gaining new students and attracting funding for research are real problems. A quick examination of the current situation suggests a need for most universities to become more diverse, especially in terms of attracting an increasing international student base and using resources across disciplines to solve problems. For many institutions of

higher learning, however, the broader challenge is more systemic—the challenge of simultaneously making structure, function and processes meet the needs of their members and the larger environment. In network language, this means creating and changing external structures, human competence, and appropriate internal structures, and recognizing the intangible dimensions of performance as integral to business transactions.

Traditionally, universities have structured their learning environment on the past in contrast to learning from the future. In order to succeed in today's environment, however, these organizations and their leaders must develop new cognitive capabilities, including the capability for sensing, embodying, and enacting emerging business opportunities (see Arthur, 1996). This type of *presensing* is based on sensing and embodying emerging futures rather than reenacting the patterns of the past (Kolb, 1984), seeking transformative possibilities and outcomes.

The Systemic Challenge: Transformative Outcomes

As systemic realities become clearer and are more distinctly developed, four key challenges emerge in the development of an ARI:

- How can the university generate new knowledge everywhere, by everybody—faculty, students, staff, administrators, and clients of the ARI?
- How can it initiate, institutionalize, and sustain self-management and nondominant hierarchies as a part of its governing practice?
- How can the university become more involved in its world and region rather than remain disconnected and detached?
- How can the participants manage the transition to actual functioning in a manner that supports its original mission?

These four concerns represent the substance of literally hundreds of daily micro-challenges in human interaction that are required to form effective, sustainable networks. These challenges must be openly faced to continue on a successful path in defining problems, their solution and achieving the desired results.

The Case Study

The intervention began as the result of two different initiatives coincidentally intersecting on the main campus of a large mid-western university. The first initiative emerged off campus. A long-term adjunct faculty member and consultant had had a positive exposure to the Socio-Economic Approach to Management (SEAM) in Lyon, France,[1] and returned to campus with an invitation to explore potential application of SEAM in teaching and research at the university. The other initiative, which began at the

same time on the main campus by the director of international education (who was newly arrived on the scene), focused on developing interdisciplinary and international education in a variety of formats. The two met on the main campus, and in the first meeting established an internal change-oriented alliance, between themselves and the chair of the management department in the College of Business Administration (B-school).

Defining Strategy and the Consulting Contract

During the first meeting of the change team, it was decided to undertake a two-phased approach focused on designing and enhancing international and interdisciplinary cooperation on a university-wide basis. The initial efforts of the first phase were to be institutionalized in the second phase, which would establish an applied research institute.

The proposal embodied an action research strategy. The Office of International Education (OIE) was the primary client, and the goal was to heighten the visibility of the OIE and address its mission within the university. Overall, the project was an experimental approach for the university (Harris & Wang, 2001), and was embarked on at some risk by the new director of the OIE, which was a relatively small, little known department housed in the basement of the campus student center.

The first phase was exploratory in nature, and involved the creation of a cross-university task force to study, review, and consider the value of the proposed program. Emphasis was placed on implementation considerations in research, teaching, marketing (of the program), and cooperative endeavors with university administration. As part of this effort, the proposal explicitly called for an exploration of and potential capitalization on a newly developed MBA concentration in management consulting, which had been approved by the Association to Advace Collegiate Schools of Business International (AACSB).[2] While only one course in the concentration had been offered, it was felt that the AACSB approval would speed up implementation of the concentration once the other courses were developed. Application of the SEAM methodology was to be considered in the MBA-level concentration and in three other Masters' programs. Capitalizing on the current management-consulting concentration was not only attractive to existing MBA students, but to graduates from other areas of the university as well, including education, the health professions and the Masters of Science in Administration.

The initial efforts of the first phase of the proposal were to be institutionalized during the second phase of the project, which would establish a network-based applied research institute (ARI) at the University. As part of this latter initiative, emphasis was to be placed on creating a self-sustaining ARI through the institutionalization of management consulting, first on the University's main campus and then beyond.

Establishing Networks to Create Value

As part of the intervention, several networks were established. As noted earlier, the internal consulting team included the director of international education, the chair of the management department, and the adjunct faculty member/consultant. In addition to creating the cross-university task force (network), the director of international education created another strategic network with representative of all the disciplines on campus to focus on implementation issues surrounding the proposed interdisciplinary and international program recommendations. The vice provost hosted representative decision makers in informal forums from time to time, and entertained key figures in management consulting, such as the deputy director of ISEOR (Lyon, France) when he visited the campus. These new networks were intended to create value by expanding the knowledge and experience base of a wide variety of university personnel.

The Dynamics of the Internal Consulting Network

The internal consulting network was guided by an active AR strategy that encouraged joint participation, and, through the process, a wide array of questions and concerns emerged. For example, an early challenge was legitimizing the role of the consulting team on a university-wide basis. Many university staff and faculty raised questions about the credibility of the team, largely based on the areas and disciplines its members represented—international education, management (in the B-school), and the college of extended learning (a long ostracized college on the main campus). Some faculty voiced opinions that only B-school faculty, rather than a department chair who represented the administration, should be on the consulting team. In addition, many believed that the cross-university task force should be recast, comprised of only B-school personnel because the project was focused in the B-school. As noted above, the director of international education was new to the university, and her predecessor had not been involved in any initiative-taking of this magnitude. There was no history or experience that supported the purpose of the project. In fact, many faculty members viewed the proposal as an attempt to avoid normal governance and curriculum processes and exert change on programs in the business school. By not placing sufficient attention on the tacit assumptions in the proposal, drawing them out more explicitly and ensuring open discussion of underlying concerns, the internal consulting team inadvertently crippled the initiative during its formative stages.

Implicit Assumptions about Sustainability

The team placed significant attention on how to sustain and institutionalize the proposed change. Unfortunately, the tacit assumptions relative to sustainability were never made as explicit as they should have been—nei-

ther in writing the short proposal nor in the several meetings regarding implementation (see Argyris, 2000). Although the issues surrounding sustainability were evident in the initial proposal in three distinct places, they were much more apparent to the change team than the rest of the university. First, sustainability was a core component of the SEAM model itself, and the proposal noted the specific factors that had sustained the SEAM approach over a period of 25 years. Second, a major ongoing task of the cross-university network was to ensure flexibility, making appropriate and timely recommendations to sustain and support the effort. Third, the cross-university network was designed to provide for self-organizing units, encouraging and negotiating self-interest while respecting the requirements of the university as a whole. Moreover, the entire second phase of the proposal was devoted to sustaining the ARI at the university, with the intent of creating multiple university-wide gains.

The full importance of "sustainability," however, was not sufficiently clarified for faculty and staff at the university. More fully explaining and understanding the payoffs to the university could have clarified the importance of the project. There were a number of things the change team could have done in this area, for example, clarifying the self-funding aspects of the SEAM-modeled ARI, which would decrease the amount of financial support required of the university. Similarly, the change team could have placed more attention on the value of related intangibles—such as improving and strengthening university-community linkages, providing support of and savings to local clients, creating more opportunities for faculty and students in consulting projects, and so forth. These areas could have been explicitly noted in the proposal and during informal discussion sessions.

Redefining the Client: Internal Dynamics and University Politics

Misunderstandings about the funding requirements of the project seemed to further confound the outcome as the B-school dean refused to sign the proposal. Although the underlying reasons were not fully clear, his refusal seemed to emerge from a lack of understanding of the implementation ramifications of the ARI's university-wide approach (see Argyris, 1970). Unwilling to drop the initiative, the director of international education called a meeting of the key players, to review the status of the proposal and to decide on appropriate actions.

Unfortunately, the meeting ended without a clear decision for action. However, the B-school dean arranged for his associate dean to accompany the consultant/adjunct faculty member on an exploratory trip to ISEOR in Lyon, France. The trip was deemed successful as it led to a fuller understanding of ISEOR's self-sustaining SEAM approach and what the ARI might look like in practice. Following the visit, a B-school professor of accounting (who had been teaching a course in consulting) agreed to con-

vene (rather than lead) a team of six faculty members who were identified by the dean. Eventually, the B-school dean contracted with ISEOR to send the faculty team (including the consultant/adjunct faculty member) to Lyon to undertake formal training in SEAM, with the goal of offering a management consulting concentration in the B-school's MBA program, with a target date of fall 2002. The B-school faculty on the team, however, only committed to producing a written curriculum by the end of 2001.

The original OIE proposal was never signed, despite several efforts to do so. While the initial intent was for the OIE and the B-school to share the expenses in the project's exploratory first phase, all the developmental steps described above were fully paid by the B-school. Despite several attempts to cooperate on the developmental effort, the B-school remained quite separate from the International Education Office. The first phase was, thus, ineffective as proposed on two counts. In essence, "client" project ownership had shifted to the B-school from the Office of International Education—a shift that was never publicly recognized. Moreover, while the B-school faculty team did develop the new four-course management consulting concentration in writing in a timely manner, it was not implemented.

Developing the Applied Research Institute

At the same time the B-school was exploring the first phase of the project, the internal consulting team began to pursue the development of the ARI. Individually and collectively they pursued further exploration at the university with the vice provost and abroad at key conferences and meetings with the ISEOR faculty. The vice provost encouraged campus-wide thinking on the value of creating a sister institute to ISEOR at the university. As a result, a brief proposal to initiate the concept of an applied research institute was formulated. The ARI was intended to be both international and interdisciplinary in character, established as a separate entity on campus, and projected to work *cooperatively* with all university units, including the B-school.

In the midst of all these activities, the vice provost moved to another institution, leaving pursuit of the ARI to the provost, who was actively searching for a position elsewhere. The provost, however, expressed excitement about the potential benefits to the university, stating that now it was necessary for the university to move forward with its plans.

Quickly, and without consultation on strategy for disseminating the idea, the provost scheduled a meeting with key deans to assess early plans about the ARI. The provost's articulated intent was to disseminate the *concept* only, to a limited number of deans, to assess their interest and to gain their support.

The provost wanted the VP for research informed before the meeting with the deans. At the presentation the following day, the research VP questioned why the B-school faculty members who had been involved in the project were not involved in the meeting. The provost's position was that the intent of the presentation at the deans' meeting was to simply get an endorsement of the ARI concept. Faculty team members would be involved later.

Following the meeting with the VP of research, the B-school dean called a meeting with the provost, the VP of research, and the director of international education, where it was decided that all activities related to the ARI initiative would be handled by the B-school dean. The meeting scheduled with the other key deans was cancelled.

This decision, based on the internal politics that were generated, essentially ended the ARI project at the university and any hope of establishing a networked, applied international, and interdisciplinary center. Now, some two years later, while a management consulting concentration does exist, it is only on paper and it has still not been implemented. The intervention was, in essence, a failure. The challenge that remains is in gaining *understanding* of the experience through a deeper analysis of the case. Applications of this insight might constructively serve both consultants and clients in their own efforts to build effective and sustainable networks.

THE REALITIES AND CHALLENGE OF NETWORK BUILDING

The understandings gained in our reflection on the ARI network project can be broken down into three main areas: (1) people utilization in the network building process; (2) the actual sustainability of the networks that were developed; and (3) the overall fit with an AR strategy. Each of these areas will be discussed from three perspectives: the overall finding and outcomes, what went wrong, and lessons for network-building initiatives.

The Role of People in Building Networks

The network building that took place within the internal consulting team reflected a strong connection between valuing people (for their contribution) and self-organizing processes. Trust was an important characteristic that helped to bind this internal network together. Two of the three members had quickly developed a trustful relationship, which in part had been honed in earlier projects. While the director of international education was new to the university, she immediately took several risks and invited the full participation of the other two. Her actions contributed to

the trust that developed among the internal consulting triad—evidenced in how suggestions and recommendations were exchanged and received, and in speedy responses to e-mails, phone messages, and other verbal communications. There was no evidence of allegiance to individual turf concerns and focus was placed on university-wide goals.

In contrast to the sense of inclusion on the internal consulting team, the B-school representatives seemed to focus only on their separate turfs, literally to the exclusion of the consulting team. Trust, as an indicator of development in network building, was not evident in their interactions with the other participants. Thus, with considerable hindsight, it is apparent that the process did not effectively draw all participants into network building. The actual utilization of people in the network building process fell short of initial intentions and design of the AR strategy.

What Went Wrong?

The tacit assumptions about network building, the importance of trust among the actors, and the long-term value of this project to the university were never made explicit beyond the early meetings of the internal consulting triad. For instance, the word "trust" was never explicitly addressed outside of the internal consulting team meetings—even though the importance of trusting each other and others was openly discussed in consulting meetings during the proposal development stage. There was no formal recognition of the importance of trust building in the wider network of relationships and teams. As interactions between people in the larger network began to unfold, communication and cooperation among team players were difficult to capture, ostensibly because people were "too busy." It is clear, however, that beyond the internal consulting team, the project was not a priority item.

A related problem was the lack of any real recognition of what the ARI ideal meant in redefining roles and potential financial outcomes. Essentially, the input and support of the different players needed to be officially recognized; the contributions by the people involved should have been viewed and valued in new ways; and people needed support for the new roles that were emerging. Keeping people tightly locked into set roles defined in the past—despite their past effectiveness—only serves to inhibit change.

The director of international education, the administrator of the project, also experienced problems in being recognized as the main "client." She was perceived consistently as "the new kid on the block," someone who might not fully "understand what she was doing." As a result of this perception, the "client shift" that occurred when the B-school dean took over the development of the management consulting concentration, went uncontested and was never publicly confronted or discussed.

What Could Have Been Done Differently?

A more intentional and formalized start-up, with recognition, approval, and systemic support from the vice provost should have been secured. Greater attention should also have been placed on recognition and supportive action in making explicit the importance of trust building in network relationships. In those situations where it is apparent that trust does not exist, the issue must be publicly addressed and underlying concerns resolved if the project is to successfully move forward. From a network perspective, the level of trust reflects the system's health and well-being—and an unhealthy system cannot operate successfully, especially over the long term.

In the present case, the vice provost should have been encouraged to create a series of interactions to help people understand how to develop trust, and how to confront it when it doesn't happen. When people do not act in a trustful manner, it must be addressed directly at that point in time. Leaders, as change agents, must create a shared understanding among the critical actors. In this case, the vice provost could have intervened during the first meeting called by the director of international education, calling for the cooperation and collaboration of the participants and impressing on them the importance of the project. Within this context, leaders must also be able to facilitate cross-departmental conflict, in essence' dissolving that conflict and creating win-win solutions. In this case, the vice provost was challenged with converting obstructions into opportunities. As Ackoff (1997, p. 23) has suggested, even "With infeasible parts one can create a feasible whole."

The role of the internal consultants could also have been strengthened. If organizational leaders do not sufficiently raise and act on the importance of trust, dissolve conflicts and convert obstructions into opportunities, internal consultants and change agents need to play this role.

If an obstruction is to be converted into an opportunity, system-wide, "new learning" must be facilitated. Much of what the internal consulting team initially conceptualized about the project and the development of network relationships (during their first meetings) should have been better articulated and communicated widely to gain support and approval before the proposal was to be implemented.

Network Sustainability

Measurement and assessment, which are usually not even thought about until after a fair amount of time has elapsed in a project, are important as a foundation for sustainability. In the present case, for example, sustainability might have been considered through an assessment of successes of the

internal consulting role, the B-school management consulting team, the administrative leadership team, and/or the outside consultant to the B-school project (the deputy director of ISEOR, who worked with the faculty to develop the SEAM methodology).

Overall, the effectiveness and sustainability of the networks developed in this project were very low. This is reflected by (1) the availability, but literal nonuse, of the only product outcome—the management-consulting concentration—and by (2) the inability to successfully address the second phase (the ARI) due to loss of systemic leadership.

What Went Wrong?

Although sustainability was an integral part of the proposal, it was never articulated beyond the developmental writing stage until more than a year into the project, when the ARI began to loom as a possibility. Many change processes fail because they are unable to sufficiently uncover the current and emerging realities of a system. Yet, without adequate dialogue, teams will be unable to express their tacit, taken-for-granted assumptions about how the system really works (or does not work). In this case, the consultants did not aid the system in going beyond relatively surface-level aspects of conversation—"talking nice" and "downloading" pieces of information (Scharmer, 1999). Consultants need to push participants toward what Scharmer (1999) refers to as "talking tough," that is, adapting language to reflect what is really going on in the minds of participants, and addressing and debating the real issues. Only then can participants move to (1) "reflective dialogue," where attention to the assumptions that underlie different points of view are identified and discussed and (2) "generative dialogue," where people are able to reconnect with their highest potential, both individually and collectively. This type of dialogue creates a basis for *presensing*, in essence, learning from the future and acting on that insight to enhance network effectiveness and sustainability.

What Could Have Been Done Differently?

Drawing on Kotter's (1996) eight-step change process, the internal consulting team could have created a greater sense of urgency, enlightening the participants about the importance of the project to the university. In the proposal writing, the consultants could also have explicitly incorporated sustainability issues and action steps earlier in the process. In a sense, networks and the ability to network to increase prosperity are effective bridges toward sustainability. Ordinarily, in planning change this type of institutionalization comes last, identifying what must be stabilized in the system to make the change permanent. Such institutionalization, however, requires considerable up-front articulation, developmental work, and

many small successes to build on that ultimately lead to truly transformative change.

Fit of the Action Research Strategy

In this case, while the fit between the AR strategy and the project was good, it broke down during implementation. Using an AR strategy in an intervention provides numerous opportunities to sensitize participants and other personnel to the methodology. In this case, it was particularly important, since the AR strategy is integral to the methodology of the SEAM method. Yet, while the AR strategy was quite familiar to the internal consulting team, it was (wrongly) assumed that the other participants were equally knowledgeable.

What Went Wrong?

The internal consulting team placed more emphasis on the planning necessary to get the proposal accepted rather than the implementation of the AR strategy. Unfortunately, there was relatively little true upper-level support for the change from the beginning. By the time the focus shifted to the need for unfreezing the system and preparing it for university-wide change, it was too late.

The consulting focus was initially on framing the change and its conceptualization. There was no planning for implementation outside of the proposal development. Unfortunately, there were many misconceptions about the reality of the situation. Gharajedaghi (1999) suggests that such misconceptions display self-fulfilling qualities, and unless uncovered and dismantled, they outmaneuver and outlive efforts aimed at uprooting them. These self-imposed obstructions can readily prevent a system from facing its current reality. They reflect commonly held assumptions about organizing principles that reside at the core of the organization's collective memory—in essence, they are responsible for making the system behave the way it does. These assumptions are therefore self-fulfilling prophecies. They can be very powerful, despite their seeming innocence. For example, "the B-school way is the direction for the whole campus!" Unexamined and accepted on faith, such implicit assumptions are often transformed into unquestioned practices that obstruct future possibilities. Unless the content and implications of these popular beliefs are made explicit and dismantled, the literal "nature of the beast" will outlive any temporary effects of intervention, no matter how well meaning the undertaken efforts may be.

In this case, the consultants did not attempt to dismantle such beliefs. Even though there was no apparent need to dismantle these implicit

assumptions until considerably later in the project, consultants need to be sensitive to their destructive potential. While there was a sense of urgency in the beginning, rather than identifying underlying problems and addressing them publicly, on a university-wide basis, the urgency concentrated on the need to create the management-consulting concentration and ARI. There did not appear to be a need to make the implicit assumptions explicit.

What Could Have Been Done Differently?

First, the consultants should have done a more complete problem diagnosis or definition, planning more completely for the implementation of such change in a politicized, higher education environment. The sense of urgency around the project should have been refocused on the problems addressed in the situation, not just on the proposed solutions. In essence, the early focus on the solution—the MBA management consulting concentration and the ARI—derailed the intervention. By focusing attention on solutions, the internal consulting team inadvertently allowed the system to avoid wrestling with its implicit assumptions, blocking healthy action taking (Gharajedaghi, 1999). The consulting team should have planned more thoroughly for project implementation, identifying and redefining the organizing principles imbedded in dysfunctional cultural assumptions. There was too great a pressure to prematurely "get started." Success depends on the ability to separate those core assumptions that are essential for our existence from the ones that are obstructive and dysfunctional, assumptions that block implementation and change.

While the failure ultimately resulted from omission rather than commission, this is an increasingly common problem in large-system interventions, particularly in network building. There are usually too many things happening simultaneously with no one at the controls. Especially in a higher-education environment, this raises unique challenges for change agents, trying to lead from below without complete cooperation of the hierarchy.

RAMIFICATIONS FOR CREATING SUSTAINABLE NETWORKS

Intervening in an emerging network requires developing trustful relationships between the parties involved as a necessary foundation for developing business results. Network relationships require interactions where members can be frank and direct with each other. As evidenced in this case, without trust it is unlikely that true knowledge and cross-fertilization of ideas will flourish.

Developing new internal consultant roles—wearing many hats and changing them often—presents significant challenges for change agents. Capitalizing on identified resources in real time during the life of the project can help to focus new learning. Undoubtedly, one such learning was the realization that the tacit knowledge that each participant brought to the table must become explicit before much could be accomplished. Developing the skill to identify what is important at the time, making explicit the relevance to each other and to the larger system, is basic to developing "negotiated self interest with consideration of the health and vitality of the entire network" (Allee, 2003, p. 237). The authors now recognize that seeing this type of behavior not only identifies effective and sustainable networks, but also signals maturation of the living systems involved.

When employing an AR strategy, both the consultant and the client must make explicit the many tacit assumptions and knowledge that they are working with as related to:

- the systemic variables involved in what are inevitably unique contexts;
- tensions in developing democratic relationships which are based on trust building;
- the need for cooperative efforts to truly identify transformative results; and
- the appropriate use of negotiated self-interest to achieve success in the environment.

An AR strategy embodies a comprehensive approach. It is not to be casually applied—as sometimes observed and concluded—from high-level interaction between consultant and client. Numerous adjustments must be made in context and in real time. While employing this type of an approach is time consuming, requiring new learning and openness, an AR strategy can take large-system change to "a continual change process similar to breathing in and breathing out" (Arthur, 1996).

Our experience also brought to the surface the types of *understanding* required by management consultants in their attempts to create sustainable networks. It is important, for example, for consultants to be able to:

- Incorporate a systemic approach in their interventions that respects the *whole*, increasing the visibility and true recognition of the participants;
- Deepen understanding of the need for identifying transformative results early in the project, through developing human potential that capitalizes on increasing people's value to the network; and
- Experience and articulate the power of failure, seeing and perceiving it as an opportunity to redesign the intervention in real time.

This latter point is especially important—considering the value of "powerful failure" in the context of emerging networks. In retrospect, much of the failure in the case was created by not considering "failure" as potential in advance—and not considering it from a positive perspective. Many successful networks emerge from "failures," particularly in multiphased, long-term change projects. It is important to anticipate failure in different activities, to recognize it as soon as possible, and to act accordingly to achieve ultimate success. Anticipation does not cause failure, but alerts one to the possibility. In this case, the recognition of failure in the early part of the first phase may have made a significant difference in the final outcome. Recognizing failure may have pointed to needed changes in control dynamics, evidenced by the actions of B-school personnel and the "client shift" discussed earlier. There may also have been other opportunities created to legitimize, on a university-wide basis, the role and need of the ARI network. Recognizing failure in early phases can provide other opportunities to intervene, facilitating the long-term success of the network-building process.

NOTES

1. Fuller information of the Socio-Economic Approach to Management (SEAM) can be found in Volume 1 of the *Research in Management Consulting* series, *Current Trends in Management Consulting* (2001). See the chapter by Henri Savall, Veronique Zardet, Marc Bonnet and Rickie Moore, "A system-wide, integrated methodology for intervening in organizations: The ISEOR approach" (pp. 105–125).
2. Founded in 1916, accreditation by the Association to Advance Collegiate Schools of Business International, which is based on a rigorous and comprehensive peer review, is considered the hallmark of excellence in management education.

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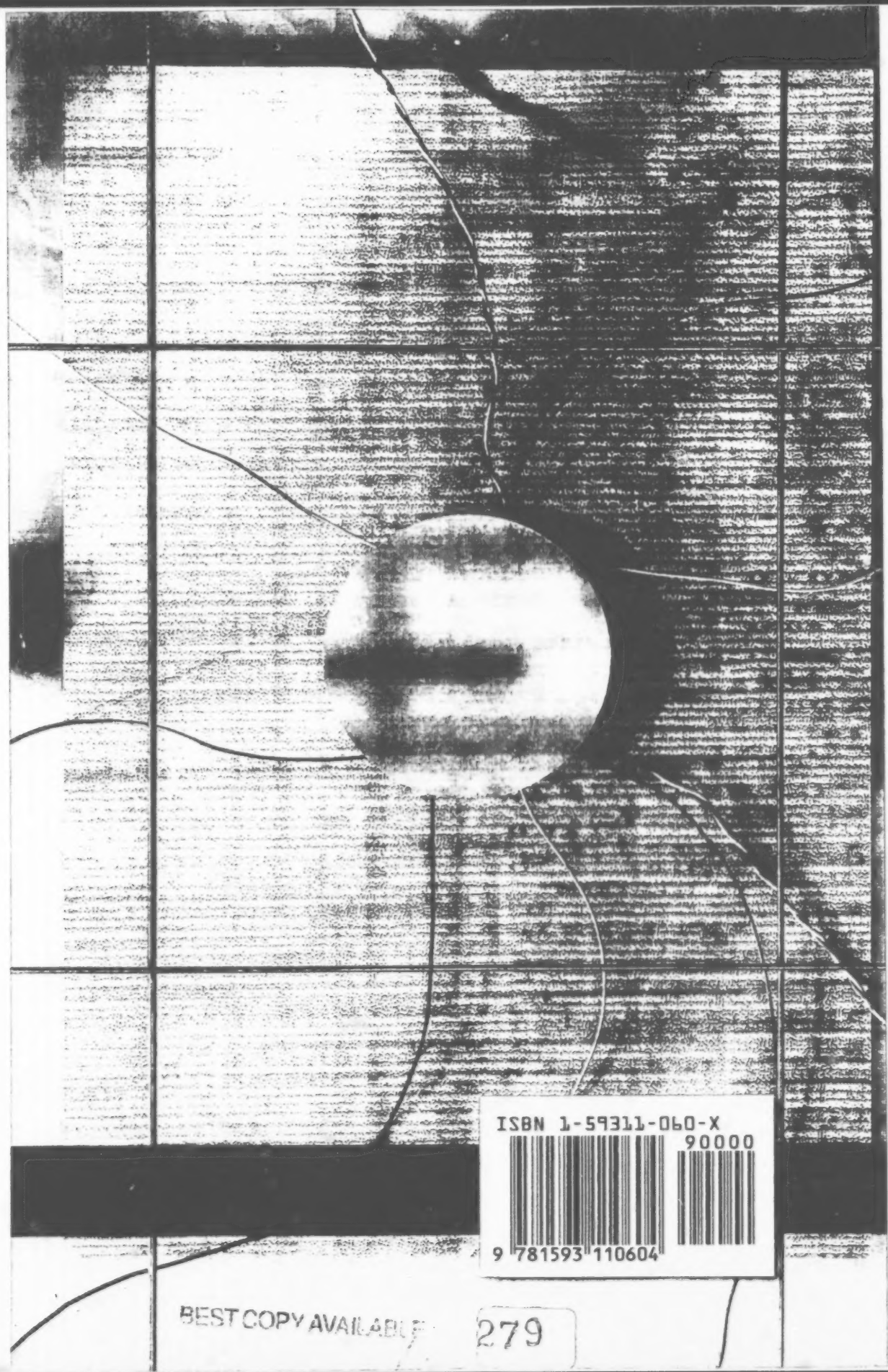

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